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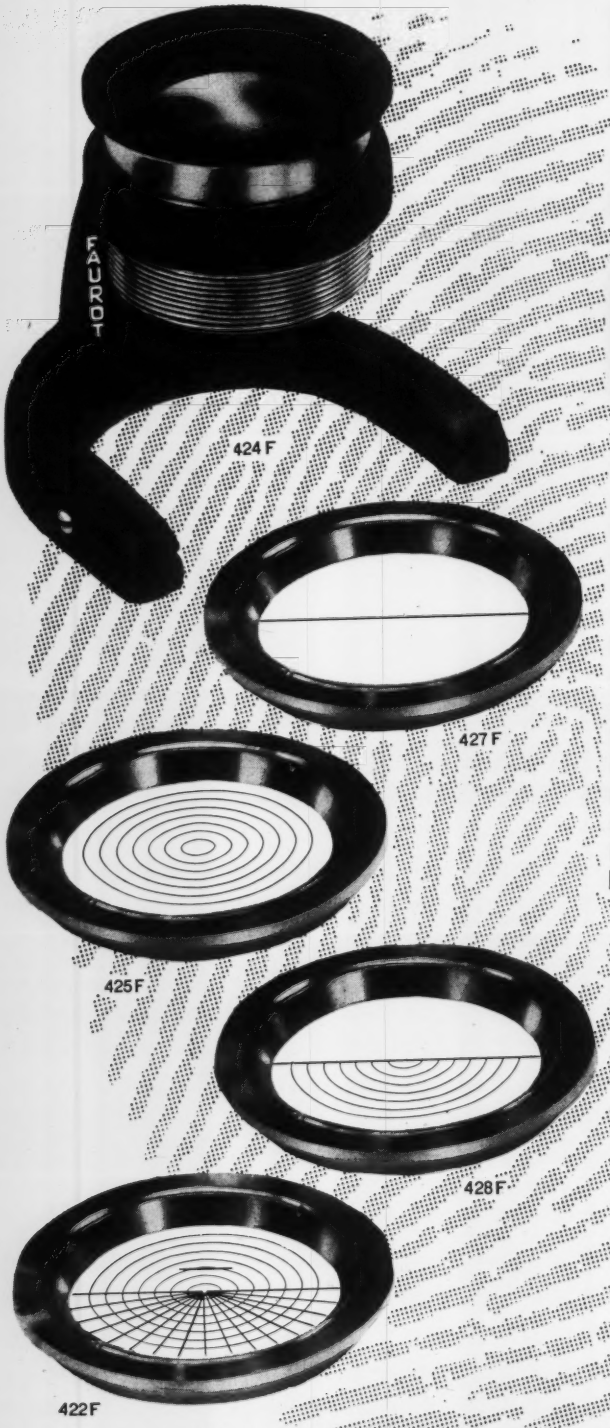

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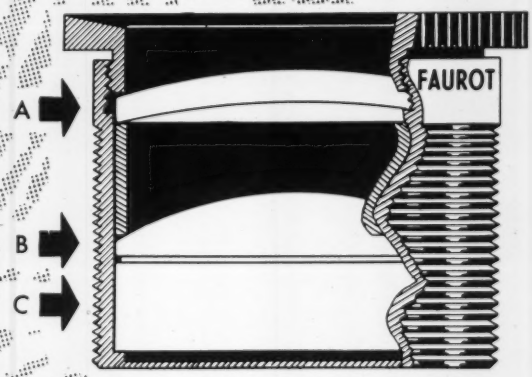

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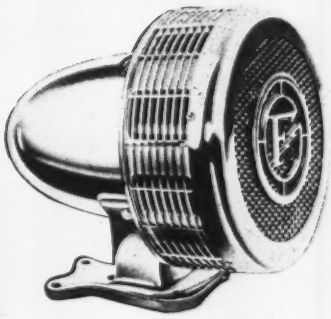

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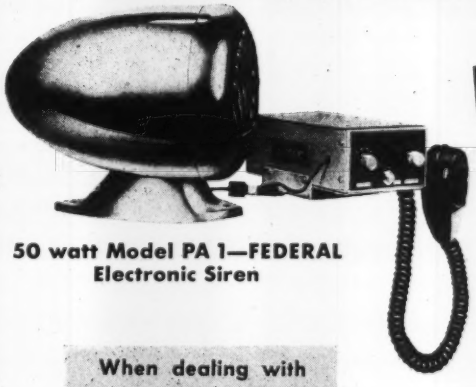

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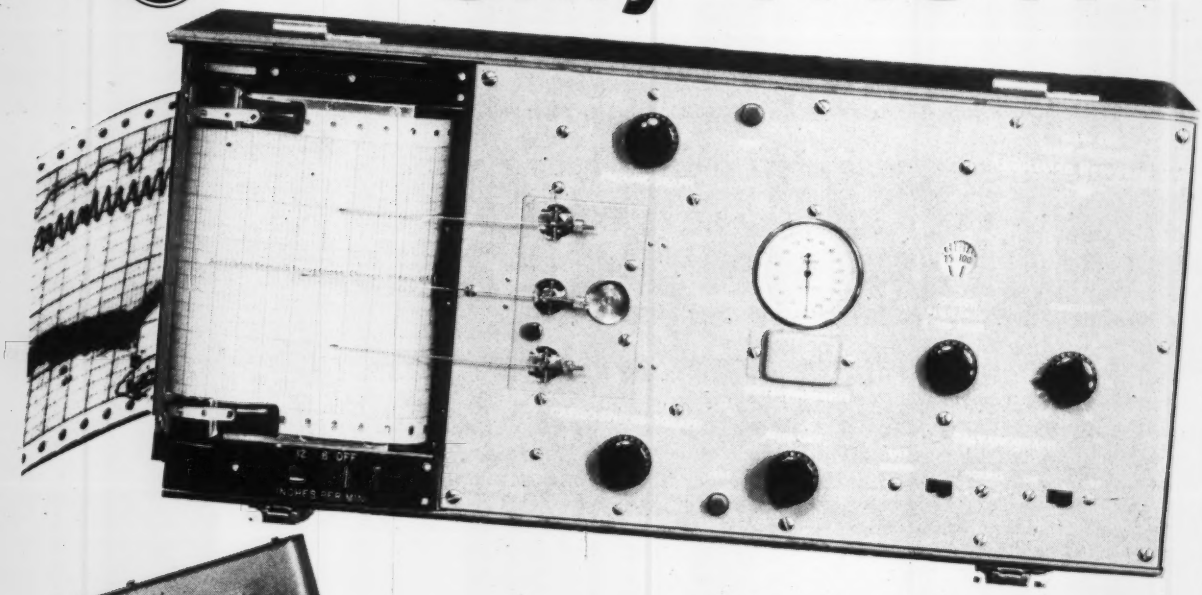

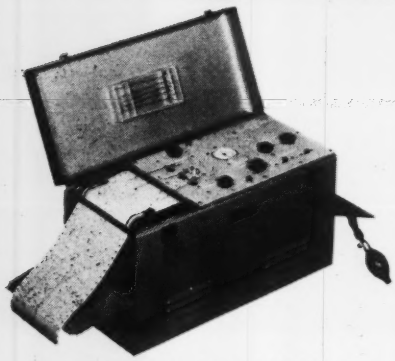

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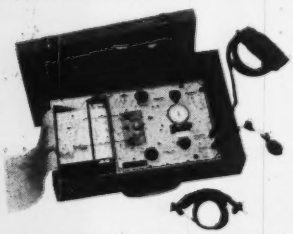

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ARSON INVESTIGATION—POLICE is the official Journal of the International Association of Arson Investigators, Inc. See page 75.

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SPECIAL AGENT'S SECTION—A regular feature for industrial security officers and others in private policing organizations. See page 48.

STATISTICS FOR POLICE EFFICIENCY — An important subject for all modern-day police administrators and those concerned with report writing. See page 68.

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1960

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FEBRUARY

Crime Down Under: In Tasmania, 1934-56

By Walter A. Lunden

EDITOR'S NOTE: *Dr. Lunden is Professor of Sociology in the Department of Economics and Sociology at Iowa State University, Ames, Iowa. A prolific researcher in the social sciences with special reference to the administration of criminal justice, he takes the reader for a look* "DOWN UNDER" *in this article written exclusively for* POLICE, *to view the problems of the police in an interesting country. What has happened in the United States and England in terms of an increase in the dimensions of the crime problem, has also been taking place around the world, and in Tasmania.*

TASMANIA, the Island State of the Commonwealth of Australia just below the southeastern tip of the Australian Continent which more than 100 years ago was the site of a British Penal Colony, is presently experiencing an increase in crimes.[1] Data for crimes known to the police, the number of criminal cases in the courts and commitments to "gaols" display a marked increase in the past seven years.

Indictable offenses (i. e., major crimes) tried in the Magistrates' Courts have increased from 2,061 cases in 1934 to 3,597 in 1953 or a rise of 63 per cent. With some slight variations criminal litigation decreased from 2,418 cases in 1936 to 1,903 cases in 1945 at the end of World War II. During these years many men 18 to 45 years of age were "called up for Military Service" thus taking them out of the civilian population. In the post-war years criminal court cases advanced rapidly to 3,674 cases in 1952. While court cases increased 63 per cent from 1934 to 1953 the total population of Tasmania increased from 228,081 to 308,752 for the same years or 35 per cent.[2]

GAOL COMMITMENTS

Commitments to "gaols" in the four administrative districts of Tasmania have varied as much as court cases. From 1934 to 1940 commitments remained above the 400 level. In the war years commitments declined to 223 in 1943, the lowest number for the two decades.

TASMANIA, AUSTRALIA
CRIMINAL CASES IN MAGISTRATES' COURTS, 1937-56 [a]

Year	Against Persons	Against Property	Forgery etc.	Against Good Order	Total
1934	175	913	3	970	2061
1935	177	996	—	1303	2476
1936	182	990	4	1242	2418
1937	182	1011	—	1071	2264
1938	153	984	2	1001	2140
1939	192	972	12	1120	2296
1940	151	838	11	1004	2004
1941	202	971	—	998	2171
1942	271	931	23	1161	2386
1943	214	867	5	1177	2263
1944	237	639	—	1054	1930
1945	200	753	19	931	1903
1946	331	940	2	1514	2787
1947	300	971	74	1345	2690
1948	278	826	2	1326	2432
1949	311	915	18	1798	3042
1950	304	836	12	1452	2704
1951	240	938	7	1856	3041
1952	361	1235	7	2071	3674
1953	362	1337	39	1853	3597
1954	327	1164	13	1861	3363
1955	392	1273	13	1694	3372
1956	364	1267	29	1596	3256

[a] *Commonwealth Bureau of Census and Statistics,* Tasmania Branch Hobart, Reports for Respective years.

After the war commitments increased reaching the highest number of 854 in 1953. In the twenty-one years from 1934 to 1954, gaol commitments increased from 401 to 738 or 85 per cent. This increase is in excess

GAOL STATISTICS IN TASMANIA 1934-1954 [a]

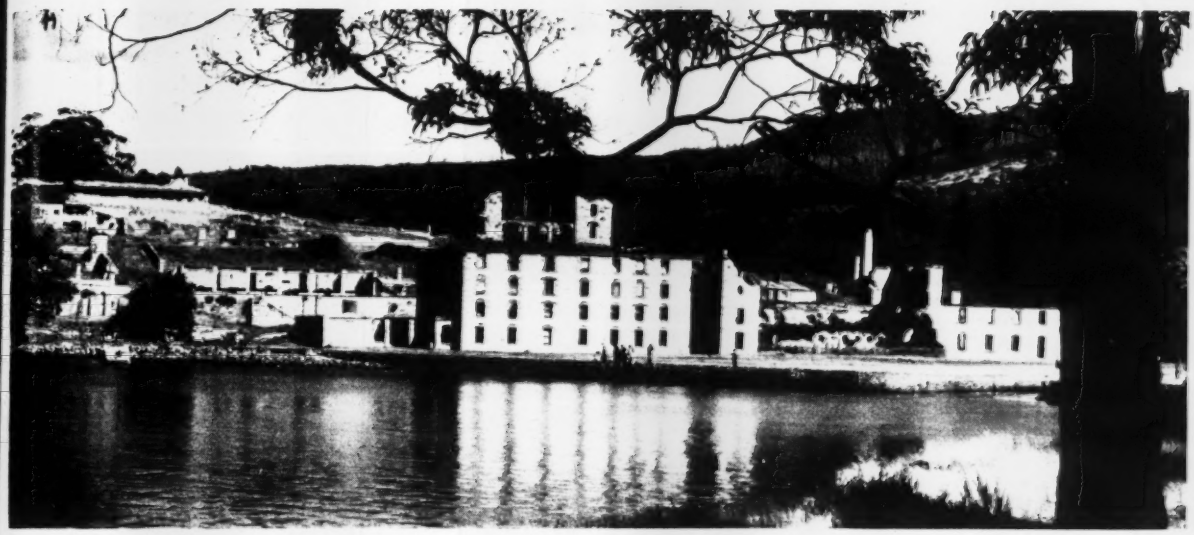
Year Ended 30th June	Commitments	Discharges	Remaining at End of Year
1934	401	422	104
1935	438	442	100
1936	407	403	104
1937	435	425	114
1938	408	435	87
1939	424	395	116
1940	406	414	108
1941	294	311	91
1942	223	252	62
1943	383	402	43
1944	417	380	80
1945	290	283	87
1946	334	325	96
1947	388	364	120
1948	383	403	100
1949	389	396	93
1950	438	409	122
1951	544	552	114
1952	672	644	142
1953	854	842	154
1954	738	740	152

[a] From special report by J. C. Stephens, Deputy Commonwealth Statistician, Commonwealth Bureau of Census and Statistics, Hobart, 1956.

[1] Tasmania with a population of 308,752 inhabitants has an area of 26,215 square miles. Between 1830 and 1853 approximately 30,000 convicts were transported from England and India to the Penal Colony near the present city of Port Arthur. During these years convicts were assigned to land owners to develop the agricultural resources of the Island. Because of the malpractices of these systems and the increased number of inhabitants in the Island the Penal Colony was disbanded in 1877. Today the records show that men were sentenced to the Penal Colony by the English Courts for stealing such items as a "handkerchief," a "bushel of barley" and for "skating privately" on a reserve.

[2] These dates have been supplied through the courtesy of the Deputy Commonwealth Statistician J. S. Stephen of the Commonwealth Bureau of Census and Statistics, Tasmania Branch Hobart.

Address: Professor Walter A. Lunden, Department of Economics and Sociology, Iowa State University, Ames, Iowa.

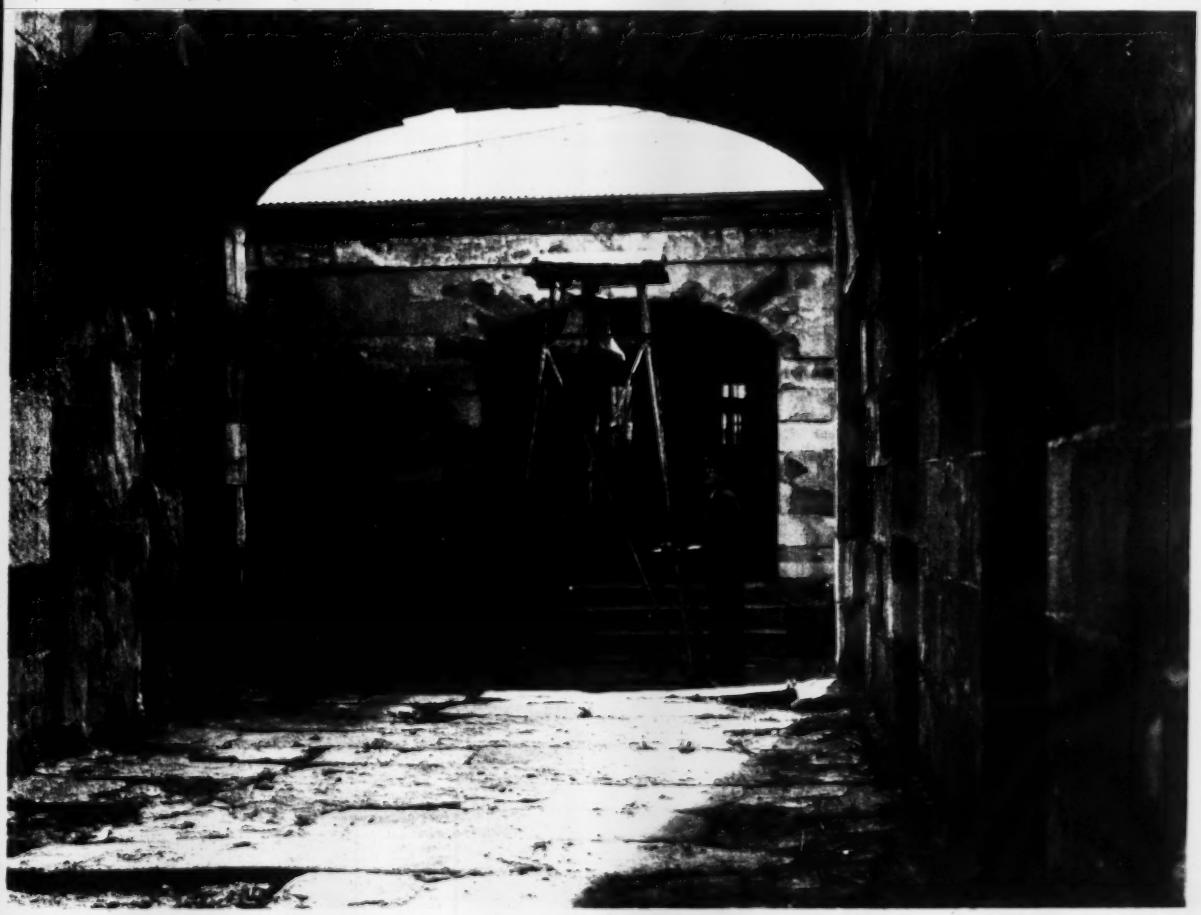


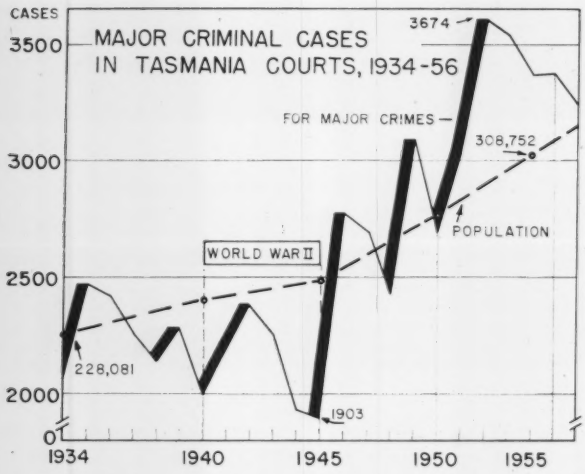
Main Buildings of the Penal Colony, Port Arthur, Tasmania. Between 1830 and 1853, approximately 30,000 convicts were transported to this colony from England and India. The Penal Colony was disbanded in 1877.

The Interior Yard of the Penal Colony showing the location of two solitary cells. Photographs supplied through the courtesy of Commissioner of Police W. J. Delderfield of Hobart and Mr. M. Sharland, photographer, Superintendent of Scenic Reserves.

to the population increase of only 35 per cent for the same year.

Tasmania has but one gaol where all terms are served regardless of length. Of the 17,695 convictions in Magistrates' courts in 1953, only 734 resulted in gaol commitments, the remaining convicted persons received suspended sentences, bonds or fines. The greater per-



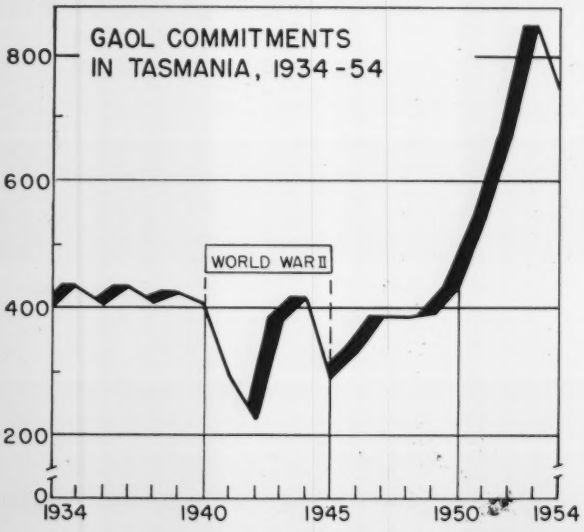


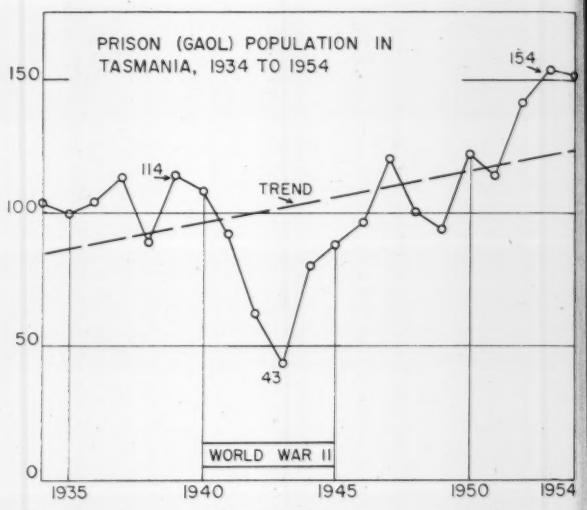
centage of Magistrates' Court cases are for minor offenses and rarely warrant gaol sentences.

The relatively rapid "turn over" of inmates (admissions and releases) results in only a small number of prisoners in any one year. In 1934 there were 401 admissions, 422 releases and only 104 prisoners at the end of the year. As the commitments have increased the number in the gaol has risen from 104 in 1934 to 152 in 1954. The Solicitor-General of Tasmania has expressed the opinion that the penalties imposed by the courts are very much the same as they have been in the past 10 years.

CRIMES KNOWN TO POLICE

Data for "crimes known to the police" are available for the years 1943-1944 through 1954-1955. In 1943 the Constabulary reported 2,912 major offenses, exclusive of traffic violations and lessor offenses. This relatively low number is due in part to the war years. In 1953-1954 the same offenses increased to 6,123 crimes. In the 12 years from 1943 to 1954 crimes known to the police increased from 2,912 to 6,030 offenses or 107 per cent.

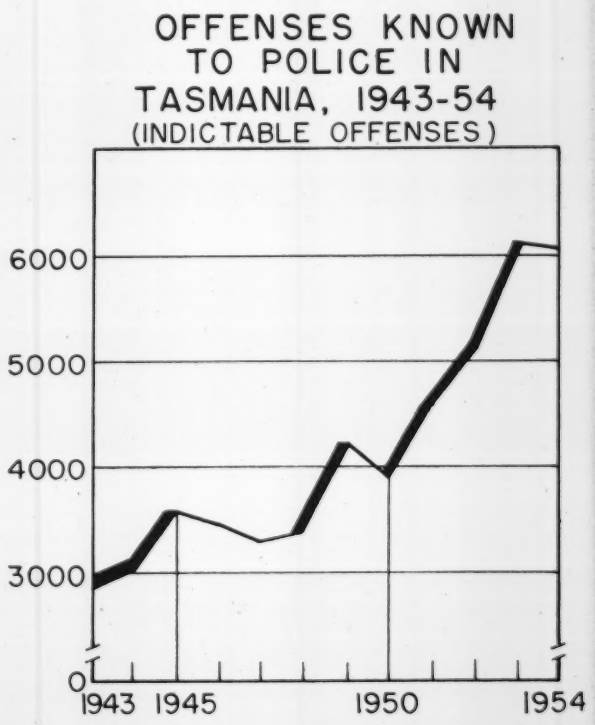


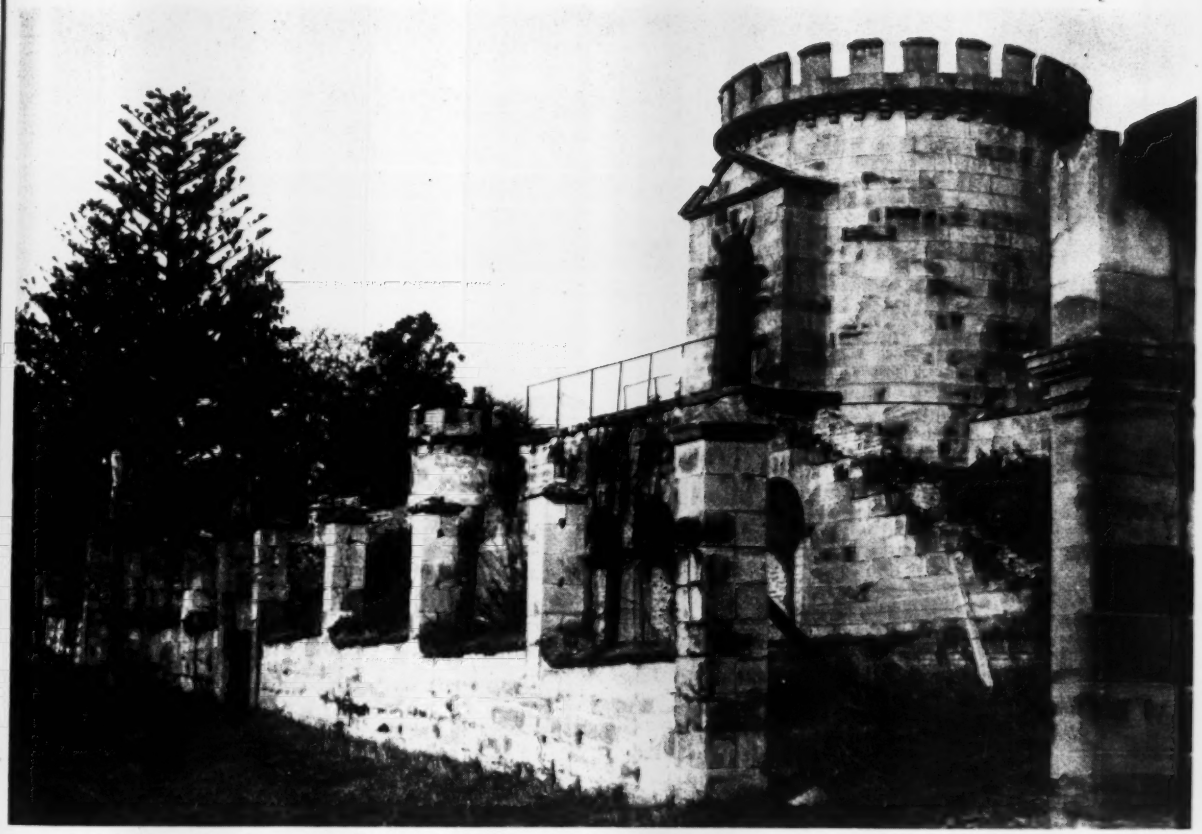


CONVICTIONS

Once a criminal case has reached the Magistrates' Courts, convictions run relatively high in the Tasmanian court system. In 1934 of the total 7,197 cases in court, 6,464 or 89 per cent terminated in convictions. During the war year, 1944, convictions decreased to 81 per cent, but advanced again in 1956 to 89 per cent of all cases.

As in other jurisdictions, the percentage of convictions varied with the nature of the charges. In cases of crimes against persons, 70 per cent of the cases ter-





The Penal Colony, Port Arthur, Tasmania. Ruins of the Powder Magazine and the Watch Tower. Smith O'Brien, an Irish political prisoner served time here for subversive activities in Great Britain.

CRIMES KNOWN TO THE POLICE IN TASMANIA, 1944-54 [a]
INDICTABLE OFFENSES, JULY 1ST TO JUNE 30

Year	*Offenses Known*
1943-44	2,912
1944-45	3,036
1945-46	3,602
1946-47	3,497
1947-48	3,295
1948-49	3,391
1949-50	4,231
1950-51	3,890
1951-52	4,590
1952-53	5,181
1953-54	6,123
1954-55	6,034

[a] Commissioner of Police Reports, 1954 and 1955, Parliament of Tasmania Hobart, Tasmania pp. 8 and 9.

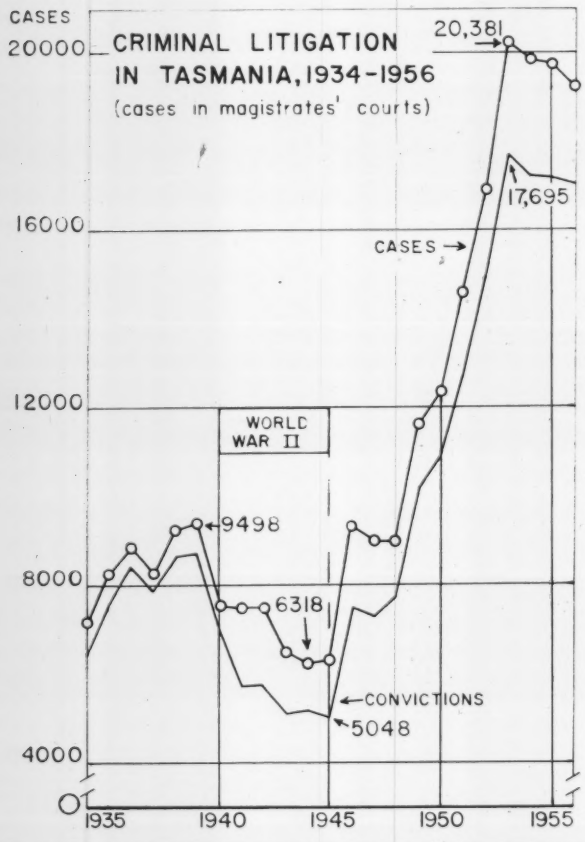
minated in conviction, in crimes against property 72 per cent of the cases terminated in conviction, but in cases of crimes against "good order" (liquor violations, revenue laws, wife desertion, etc.) convictions amounted to 92 per cent in 1956. The increase in the number of cases in court and convictions has been due in part to the rise in traffic offenses in the past years. In 1956, of the total 19,274 cases in Magistrates' Courts, 10,409 were for offenses against traffic regulations. Of these 10,409 cases, 9,771 resulted in convictions.

The Island State of Tasmania which is about the size of West Virginia in the United States or Scotland in the British Isles, had a Constabulary force of 507

LITIGATION IN TASMANIA
1934-1954 [a]
CASES AND CONVICTIONS IN MAGISTRATES' COURTS

Year	*Cases Tried*	*Convictions*
1934	7197	6464
1935	8345	7658
1936	8948	8347
1937	8388	7927
1938	9236	8605
1939	9498	8722
1940	7548	7078
1941	7479	5721
1942	7427	5817
1943	6508	5122
1944	6318	5229
1945	6422	5048
1946	9390	7529
1947	9024	7312
1948	9060	7701
1949	11713	10206
1950	12403	10961
1951	14649	12765
1952	16964	15032
1953	20381	17695
1954	19814	17299
1955	19673	17314
1956	19274	17029

[a] From Education, Hospitals, etc., 1938 to 1954, Part IX, Section 1, Commonwealth Bureau of Census and Statistics, Tasmania Branch, Hobart.



officers, men and women (1957). The force is well equipped with police cars, vans and two-way radio communication. Apart from the sharp increase in cases for traffic offenses (3,861 in 1948 to 10,253 in 1953), the Constabulary reported marked increases in "stealing," "housebreaking" and "breaking and entering a building other than dwellings." The amount of "pillage" on the waterfronts has become a serious problem for the local police in the port cities. In order to meet the increase in youthful offenses the Constabulary has in the past few years developed Boys' and Girls' Clubs in the larger cities. The Hobart Police and Citizens Girls' Club organized in 1955 embraces such activities as basketball, choir, dancing lessons, and films. A holiday camp for boys has been established along the Coast at Piper's Head to care for the city youth.

It may be assumed that the increase in crime in Tasmania may be due to the increase in population, but in reality the rise in crime in the past twenty years is far in excess of the 35 per cent increase in the total number of inhabitants. Increased urbanization, advanced commercial and industrial changes have altered the pattern of life in the Island States in the post-war years. What has happened in the United States and England has also been taking place around the world in Tasmania. Increased social mobility and modifications in the general value systems of a people have brought changes in behavior patterns. ★★★

American Antique Guns And Their Current Prices

By Martin Rywell. Pioneer Press, Harriman, Tennessee

THIS is the 9th annual edition of a book that has become the standard guide to the fascinating hobby of collecting antique guns. Packed with information and photographs, this book lists more than 2,000 American pistols and revolvers. It describes, classifies and gives current values for every make and model from flintlock through automatic or from earliest time to date.

It has additional features which include A History of Firearms. Those interested in firearms will find it packed with information as it starts with the first formula for gunpowder; the application of gunpowder to the gun and its invention and it follows every major advancement including the matchlock, the wheellock, the flintlock and percussion ignition; rifling, caps, cartridges and the automatic. It includes a dictionary of firearm terms; illustrations of proof-marks stamped on foreign weapons; a complete list of flintlock arms makers, guide to gun collecting and other helpful information.

Some of the illustrations show some mighty odd-looking weapons such as the knife and fork with guns in the handles and a listing of curious pistols. These list a Sword Pistol with a pistol concealed in the hilt; a cane pistol with the handle of the cane used as a trigger; and a bicycle handelbar with each end a pistol.

Written by Martin Rywell, the author of a dozen published books on the subject, we have the ideal combination of an antique gun enthusiast who is also a prolific writer on American history. Known for his painstaking research, and therefore we may accept this book with authority.

Rywell writes: "Vital to the story of American technical ingenuity, skill and progress is the American method of belt assembly lines and interchangeable parts, contributions made by gunsmiths . . . America gave to the world the rifle, the deringer and the revolver. These old and reverenced weapons were invented for peace and are a noble reminder of the pageant of people that braved unknown dangers, 'Went West,' blazed trails, formed territories, established law and order, pushed back the frontier and created a nation. The revolver was one of the greatest civilizing factors. . . . Each gun opens a window upon an historical vista."

Re-Establishment of the Adult Probationer and Parolee in the Family and in the Community*

By Charles L. Newman

EDITOR'S NOTE: *The author is an Associate Professor and Director of a newly developing Division of Correctional Training at the Raymond A. Kent School of Social Work, University of Louisville. Until recently, he was an Assistant Professor of Criminology and Corrections at the Florida State University. The Florida Probation and Parole Association twice elected him as their president. He has served as a special consultant on the Indiana Probation Survey for the National Probation and Parole Association, and has prepared several probation and juvenile delinquency surveys independently. Professor Newman received his academic training at New York University and the University of Minnesota. His articles have appeared in a number of journals, and his* SOURCEBOOK ON PROBATION, PAROLE, AND PARDONS *(Thomas, 1958) is used as a text in most schools teaching courses in the probation and parole area. At the present time, he is southern vice-president of the American Society of Criminology.*

WE can all agree that crime is a tremendous drain on the American economy. Daily our newspapers, T.V., and radio stations tell us of the loss of property and life represented by violations against the law. What they do not tell us is how much crime costs us in the loss of manpower and productivity. Even more important, perhaps, is that the average person does not see crime and criminal behavior in terms of the emotional drain upon the family and the friends of the offender when he is ultimately apprehended and convicted. Nor can such news reports possibly show the loss of status and rejection which the community manifests upon the offender once he has gone through the judicial process and stands convicted before the court and the community – a rejection which continues to last for a lifetime.

The history of society's concern with the offender is a long and varied one, frequently filled with brutality and sadism. We have gone through periods where superstitions and hatreds and prejudices have prevailed. Many of these persist today. In the past few decades, however, there has been a growing belief that a professional, if not a scientific approach to crime and delinquency must be undertaken. Today we speak of the process of attempting to deal with the offender as one of "corrections."

What is corrections? Broadly speaking, this area includes such functions as: prevention, law enforcement, administration of justice, probation, institutional classification, custody, treatment, parole, and services after discharge which aim at the fullest degree of rehabilitation of the offender. It includes agencies dealing with the adult crime as well as with juvenile delinquency. Police, courts, probation services, penal and correctional institutions, parole agencies, as well as the adjunct services of public welfare, prisoner aid, employment services to discharged offenders, also fall within the scope of the correctional field.

Probation is one of the newest of our methods of correctional treatment. Although its definition requires more comprehensive consideration, in brief, probation allows the convicted offender to remain relatively free in the community under supervision of a person who guides him to lead a law abiding and self-satisfying life. Thus, it differs from other forms of disposition, such as imprisonment, fine, corporal (punishment) or capital punishment, in that it is not based on a philosophy of retribution. In contrast to the suspended sentence, probation provides supervision and treatment for the offender.

Probation is not leniency. It is the field application of the knowledge derived from pre-sentence investigation, with the hope that this type of disposition will be most effective in the rehabilitation of the individual offender.

Selection is a most important element in the success of probation services. Probation should not be granted to all first offenders nor should it arbitrarily be denied to those who previously have been in difficulty with the law. Rather, it must depend upon the availability of services of the court and of the community to assist the individual to learn new social values in a non-institutional environment. The basic assumption in probation selection is that the individual has the capacity to make an adjustment outside an institution. Any other application of probation is a misuse.

Probation (or parole) supervision must focus upon discovering the strengths in the personality of the offender. Pre-occupation with character defects or personality weaknesses all too often obscure the positive

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The probation officer performs an important law enforcement function as he supervises the offender, assisting him in the transition to normal community living.

attributes. It is during probation that the offender is allowed to remain in the community under supervision, that he receives the counsel and the service which will give him the opportunity to effect changes in his environment and alter his deviant values in order to adjust to normal community living.

If he is not placed on probation the convicted offender finds his way to the state prison or correctional institution where little retraining is provided. When the offender is looked upon as filling one more bunk in an already overcrowded institution, (as is so frequently the case), or as one more hand on a work detail, or as one more body to be guarded and watched with almost paranoid suspicion, he may learn to adjust or to conform to the institutional environment, but it has not been demonstrated that such an adjustment has any carryover into wholesome community living.

More likely than not, the inmate will learn the culture of the prison. He will become "prison wise" and be more careful in the commission of his next illegal act so that he is not caught. If, on the other hand, we see that during the time his liberty is restricted he is prepared to return to full freedom for a law abiding, self supporting, self respecting life in a free community, then we are approaching the aim and the ideal of corrections.

We can hope, moreover, that one day it will be widely recognized that the correctional process is not something separate and distinct from the enforcement of law, but rather an integral part of it. The police officer who prevents a crime by patroling his beat alertly is engaged in law enforcement, but so is the probation or parole officer who is supervising the offender, assisting him in the transition to normal social community living.

Unfortunately, and we can say this with a great deal of regret, there are some in our society, again in very prominent places, who see the role of law enforcement and corrections as being antagonistic toward each other, but actually the reverse is quite true.

The aims of both probation and parole are generally considered to be twofold: the protection of society and the rehabilitation of the offender. Society has the right to demand protection against future violations through the imposition of rules and regulations and placing limitations upon the offender's conduct. But protection of society is likewise vested in the rehabilitation of the offender. A person who feels he wants to conform and does so voluntarily is far more adjusted than one who is forced to conform and will continue to do so only so long as force is applied.

As aspects of a correctional cycle, probation and parole are twin but not identical processes. In both instances, the offender has violated some law which subjects him to incarceration. As was pointed out earlier, in probation, the judge suspends imposition of imprisonment subject to the offender's willingness to accept supervision by an agent of the court (the probation officer) and to abide by certain conditions of behavior. In parole, the offender has been through the experience of prison life. He has been released before the end of his sentence on the authority of the parole board. In return for this privilege, the parolee should be required to live up to a rigid code of conduct which is intended to aid in his adjustment to an acceptable and useful life. In both probation and parole, it is recognized that unless an offender is able to find socially acceptable outlets for his behavior, further law violations will occur.

The process and techniques of supervision and treatment involved in probation and parole work are basically the same. The probation or parole officer makes use of his own personal skills as well as those of other social services which are available in the community, in assisting the offender to help himself toward acceptable social living.

THE DILEMMAS OF THE MODERN PRISON SYSTEM

Our contemporary prison systems are proceeding on rather uncertain course. On the one hand, prisons are expected to punish; on the other they are supposed to reform. They are expected to discipline rigorously, at the same time that they teach self reliance. They are built to operate like vast impersonal machines, but they are expected to fit men into normal community living. They operate in accordance with fixed, autocratic routine, yet they are expected to develop individual initiative. All too frequently restrictions of law force prisoners into idleness despite the fact that one of

Continuing contact with the parolee and his family can help resolve tension-provoking situations.

their primary objectives is to teach men how to earn an honest living. They refuse the prisoner voice in self-government, but they expect him to become a thinking citizen in a democratic society. And so the whole paradoxical scheme continues. Faced with these dilemmas, the parole officer must bring into play all of the techniques and services available to him to assist in the readjustment process. A major problem faced by most probationers and parolees is one of employment. Generally, the public and private employment services have failed to recognize the need of the prisoner group. Re-establishment of both probationers and parolees in sound community living requires the availability of jobs which do not relegate the individual to a position of second class citizenship.

FINANCIAL ASSISTANCE FOR THE OFFENDER

In contrast to the offender who is released at the expiration of his sentence, parole boards generally require that prospective parolees have a satisfactory employment plan prior to release. However, the availability of the position, though highly desirable, does not necessarily provide the opportunity for self-support before the first paycheck is received. Public assistance and private social agencies must fill the gap. This is particularly true where the offender has family responsibilities.

Up to the point of release, public welfare agencies are generally willing to assist the offender's family, but removes them from public rolls at such time as the husband returns to the community. Rather than immediate termination, public welfare services should have the continuing responsibility to assist probationers and parolees until such time as they are able to show successful forward movement. The cost will be cheap when compared to the eventual loss when measured against a repetition of criminal behavior.

CREDIT PROBLEMS

It is commonplace to discover that inmates have complicated their offenses by defaulting on installment contracts. What is less well known is the method whereby some of these contracts can be renegotiated. Inmates need to be advised on the subject in order to avoid needless flight and panic. Since the entire economy is based on credit, the time has arrived for systematic information on credits and loans to be incorporated in the training program in institutions as well as to have such information readily available to probation and parole staffs.

EMOTIONAL PROBLEMS AND THE FAMILY

In thinking and talking about the re-establishment of the offender in the community, whether he is a probationer, a parolee, or a straight releasee, it is vital that we set our sights upon the totality of services rather than a fragmented approach. This means of course that we think in terms of the entire family unit rather than the individual offender on an isolated basis. Many offenders have had difficulty in the past with the overuse or the compulsive use of alcohol. Alcoholics Anonymous and Alcoholic Rehabilitation centers, mental health units, and similar social services are vital components in the re-establishment of the individual offender to healthy social living. This rehabilitation involves not only the individual but also the family setting in which he finds himself. It is generally recognized that alcoholism is a symptom of personal maladjustment but the elimination of the symptoms does not get at the root of the problem. The readjustment of the individual's personality *plus* the elimination of the problem areas causing the confusion are a basic necessity.

JUST A JOB?

In exploring the inmates' occupational experience, it is vital that the probation and parole officer be consciously aware of the fact that *just a job* is not enough. Employment experience must provide some sort of emotional satisfaction and security. A man whose income is inadequate to meet his family's weekly budget is going to have problems and this is going to impinge upon the entire family. A man whose position lacks social approval or status is going to have difficulty in adjusting to that job, whether or not it is a requirement that he remain continuously employed in order to maintain the conditions of his probation or parole. While finding a job for the individual or probation or parole has never been an easy one, the probation or parole officer should strive continuously to find the *right* job for the man. A possible resource not too frequently tapped

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by correctional personnel, is the labor union. It should be pointed out that some trade and craft unions have developed far reaching and perhaps little-known programs of restoring union benefits and providing care for eligible dependents of members. Local information will reveal the extent to which labor organizations are active in these matters.

FAMILY AND THE OFFENDER

The family of the offender must be prepared for his ultimate return to the community just as the offender himself must be prepared for his return. Studies in recent years have tended to demonstrate the existence of marital and family problems before the individual has been committed to the institution. Consider how much more traumatic those problems can become after a period of prolonged separation. Readjustment problems arise both from the sensitivity of the inmate and the stranger-like quality which the parolee carries with him in his return to the family after a prolonged absence. The use in this country of the conjugal visit has been quite limited. It is admitted however that such opportunity to maintain wholesome family relationships, even though the inmate is in the institution, can assist materially in bridging the gap between institutional living and family life.

In view of the abnormally large caseloads which most probation and parole officers carry, it appears improbable that there will be sufficient time to provide the type of family counseling which is necessary. Therefore, the astute officer will make use of those services of the family agency in the community, (if one is available) in assisting to work out better family relationships. Where the individual has been committed to an institution, a continued contact with the family of the inmate always seems highly desirable. Unfortunately, there is *not* one state in the nation where such continuing care services are being provided.

No one can question the importance of developing an understanding of the value of wholesome contacts by the inmate with the outside world as a factor in his rehabilitation. One of the means whereby this continuity is maintained is through visits by the family of the inmate while he is in the institution. Three major values are derived. First, it is important that the inmate maintain contact with his family because it helps him overcome a feeling of banishment from civilized society. Secondly, it affords an outlet for gratification for natural affections for parents or spouse or children, and thirdly, it helps maintain the morale of the family during the inmate's enforced absence. Unfortunately, however, visiting in the institution is sometimes quite difficult for the family to maintain because of the distances and expenses involved.

Some philanthropic organization might well consider the establishment of a loan or gratuity fund for families to visit the inmate in the institution. From the standpoint of healthy family relationships perpetuated, the money would be well spent. Not infrequently, also, poor attitudes are displayed by visitors, as for example, nagging the inmate for getting into trouble and causing shame or sorrow for the family. There can be an exaggeration of financial and other difficulties in which the inmate cannot assist and which can only cause him worry and anxiety. It is of course the responsibility of the institutional counselor to assist the inmate in making an adjustment. If an ongoing program of family counselling is maintained in the community, the likelihood of such behavior is minimized. However, those problems which develop in the institution will have to be dealt with on the outside and this becomes the parole officer's responsibility in attempting to re-establish wholesome ties.

THE PLACE OF RELIGION

The church, its minister and congregation, can be a highly stabilizing influence in the life of the offender. Moreover, it can provide one avenue of acceptance by a segment of the community which might otherwise be unaccessible. No one can doubt the importance of the development of an understanding of religion in so far as individuals trying to reshape their lives are concerned. Generally the mission of religion is the same to the inmate as it is to others. Religion carries with it the timeless and universal message of the existence of God and His concern for His creatures. It teaches the reality of values which exist beyond the world of time and space, and declares the unassailable worth

and dignity of the individual human soul. What the community can provide through its religious institutions, is a sense of values which emphasize the *qualities* rather than the *quantities* of life. It can give the offender a feeling of belonging to and being wanted in the world that is part of the morally-ordered universe. It can give him insight into and understanding of himself and his problems. Moreover, it can help him toward spiritual, moral and emotional maturity.

Unfortunately, the probation officer frequently has to overcome the antagonism or indifference of many probationers and parolees with reference to religion, and sometimes that indifference or antagonism exists even among correctional personnel themselves. The corporate aspect of religious services helps the offender to overcome the feeling of being alone in an unfriendly world.

WHAT LIES AHEAD?

The task here is not an easy one, nor shall it ever be. The responsibility for the re-establishment of the inmate in the community is in the final analysis the inmate's own responsibility. He has to make adjustments to the community, but the community as well must make certain adjustments to him. First, it must allow the probationer or parolee "living space," that is, an opportunity to find employment, an opportunity to succeed, rather than be faced with a prophecy of failure. The fact that the majority of individuals placed on parole do not get into further difficulty with the law, suggests the desirability of this type of correctional treatment. The same can be said for those placed on probation. However, when the community will not allow the offender a chance to become accepted, where his status is so low that he has no opportunity to climb up, then failure seems almost inevitable. It appears highly desirable that civil rights be restored to the individual upon successful completion of a probation or parole term. The loss of voting rights or the privilege to obtain licenses, delegate the offender to a second class level of citizenship. If our ultimate aim is the rehabilitation of the offender, once he has proven his ability to abide by society's rules and regulations through a successful completion of probation and parole, then it is necessary that he be restored to an equal plane with his fellow members of the community and of society. Family problems of course are common in our society. The very fact that the individual has violated the law suggests his inability to maintain wholesome community relationships, of which family living is a part. Therefore, rather than to ignore the problem of the inmate and his family readjustment, it becomes incumbent upon the community to place major emphasis in this direction. The law violator may have transgressed our society's laws, but ultimately he returns to the community and society and must become a part of it. Therefore, services must be made available to assist in this readjustment process.

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A New Police Investigative Tool

ADOPTION of an entirely new concept of visual identification of wanted criminals, termed "the greatest practical aid in identification since fingerprints," was announced by Los Angeles County Sheriff Peter J. Pitchess.

The new system, based upon the use of a simple device known as the Identi-Kit, was developed by Townsend Engineered Products Incorporated of Santa Ana, California with the technical asistance of the Los Angeles County Sheriff's Department. The Identi-Kit was adopted by the Department as a permanent function of the Bureau of Identification at the conclusion of extensive and thorough field tests.

The Identi-Kit is a system wherein a full-face, eye-level facial likeness of a wanted suspect can be obtained by overlaying transparent films, each bearing a line drawing of a coded facial characteristic. During field tests, operators with minimum training were able to build up these line drawing likenesses from descriptions of witnesses or victims.

Sheriff Pitchess stated that the Identi-Kit will save thousands of man hours in early identification and capture of murder or kidnaping suspects. Also, savings in direct, practical assists to investigators cannot be measured. It is apparent from the findings, said Sheriff Pitchess, that the percentage of assists far exceeds that of other identification methods now being used, including fingerprints, artists' conceptions, handwriting, and general descriptions.

It is evident from the test-period findings, said the Sheriff, that the Identi-Kit performs a practical, easily obtainable service to law enforcement in the field of identification.

During the training and test period, Los Angeles County deputies worked 123 cases, some for other cities. Eighteen of these cases were closed by arrest, with 16 of the suspects easily identifiable from the composites. Eleven of the suspects apprehended by use of the Identi-Kit were tied to more than one crime.

The deputies in training were able to develop composite line-drawing likenesses in an average of 20 minutes each, as compared to an average of four hours for staff artists. Photos of known criminals were cataloged by the Identi-Kit code system in an average of 10 minutes each. Finding time in the files was 40 seconds each by the code.

None of the operators had previous training in visual identification, art or portrait work. Sheriff Pitchess stated that the test period proved conclusively that the system is completely operational in terms of personnel requirements, speed of operation, reliability and overall benefit and service to investigators and law enforcement agencies.

Once an overlay is completed to the satisfaction of a witness, the letter-number code of each transparency used allows the cataloging, filing and transmitting for reconstruction by another Identi-Kit user without photographic equipment. It can be done by phone or written code message. The composite overlay can be printed photographically to produce an accurate line-drawing likeness for reproduction and distribution.

The Identi-Kit itself consists of approximately 500 transparent 4½" x 5½" films or slides, each bearing a facial characteristic or accessory and coded by letter and number.

This complete illustrative catalog of facial characteristics and accessories as primary identification data, is divided into 12 categories: A—Age Lines, B—Beards and Mustaches, C—Chin Lines, E—Eyes, D—Eye Brows, F—Face Colors, G—Glasses, H—Hair Lines, T—Head Gear, L—Lips, N—Noses, and S—A Scar Grid for locating identifying marks remembered by witnesses or victims. A printed operational handbook aids the operator in selecting overlay components which most closely illustrate the wanted subject. The transparencies can be used in reversed position to obtain a more accurate representation from a verbal description.

Limitations always exist in word descriptions, but reduction of physical and facial characteristics to pictoral form by use of the Identi-Kit overcomes this problem, according to findings in the test. Where more than one witness or victim is available, comparable composites may be made at different locations and different times, resulting in the reduction of error and producing a more accurate facial composite.

With the portable Identi-Kit, composites are built up in the field as soon as possible after the report of crimes. The composites were made at the scene of the crime, where possible, to give witnesses or victims the benefit of recalling the description in familiar circumstances and surroundings. The portable kit weighs only 7½ pounds, provides its own operational table, and when closed is 10" x 6" x 5¾" in size.

Sheriff Pitchess pointed out that the Identi-Kit offers a practical and utilitarian reconstruction of visual identification based on a process of elimination or negative recognition. Great numbers of suspects are quickly eliminated because they do not approach in any way, characteristics shown to witnesses when using the Identi-Kit. Even an overall physical description will give the Identi-

Newest weapon in the continuing war against crime, the Identi-Kit, officially adopted by the Los Angeles County Sheriff's Department, is viewed by Sheriff Peter J. Pitchess (r) and Edmund B. Buster, West Coast vice-president of Townsend Company, whose Townsend Engineered Products Division developed this new system of identification. Deputy C. E. McElroy (seated) is building a composite likeness of a law violator from a verbal description given by a victim or witness to the crime. Based upon the use of a simple device known as the Identi-Kit, a full-face eye-level facial likeness of a wanted suspected criminal can be quickly and easily produced by overlaying transparent films, each bearing a line drawing of a coded facial characteristic. The Identi-Kit concept was originated by Chief Hugh C. McDonald of the Los Angeles County Sheriff's Department, and the device was developed by Townsend Engineered Products Division of Santa Ana, California.

Kit operator a general indication of the type of facial characteristics with which to start his composite.

The Identi-Kit concept was originated by Chief Hugh C. McDonald of the Los Angeles County Sheriff's Department and developed by Townsend Engineered Products Incorporated of Santa Ana. Chief McDonald, a veteran of 24 years in the field of law enforcement, first became interested in visual identification early in his career when he was assigned to the Bureau of Identification. Chief McDonald was active in the rehabilitation of law enforcement agencies of several large European cities following World War II, during which time there became apparent a universal need for a system of visual identification that would bridge language barriers. He has been a lecturer for the past ten years at the University of Southern California, University of California at Los Angeles, and El Camino College. ★★★

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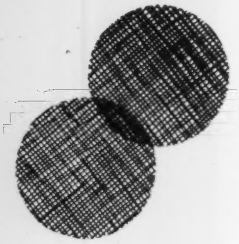

Blood Drop Patterns

By Dr. Conrad Rizer

EDITOR'S NOTE: *The application of scientific method is a characteristic of the march toward professionalization in the American police services. In the examination and resolution of evidence materials through the aid of the physical and biological sciences, the forces of law and order have made important gains during the past quarter century. Not the least among scientific procedures now at the disposal of police personnel in their service to the community is the discipline of mathematics and through its application, the tools and skills of the police are immeasurably sharpened.*

THE angle at which a drop of blood strikes a surface can be significant evidence in many cases of criminal investigation. In order to calculate or even estimate this angle, it must be assumed that the dimensions of the drop pattern on the receiving surface do not change with time. Polzer,[1] using fresh hog blood from the City Slaughter House in Prague, made drop patterns on various hard surfaces such as wood, metal, and writing paper. He found that dried patterns had the same form and dimensions as fresh wet patterns.

A round drop striking a surface at any angle other than 90° will produce an elliptical pattern. This may be observed in cases where liquids are handled and some splashing occurs. Although a blood drop pattern does not have a continuously elliptical contour, the elliptical part is sufficient for the determination of the sine value and the corresponding angle. The ratio of the shortest or minor diameter of the elliptical pattern to the longest or major diameter is equal to the trigonometric sine function of the angle between the receiving surface and the tangent to the drop's trajectory at its meeting with the receiving surface.[2] This sine function for a given angle is also equal to the ratio of half the minor diameter, b, to half the major diameter, a.[3]

THE STUDY

The purpose of this study was to find, through statistical analysis, how accurately the angle at which a drop of blood strikes a surface can be determined from measurements along the major and minor diameters of its pattern on that surface.

A 100 cm³ burette containing blood was mounted on a laboratory table in such a way that the tip of the nozzle could be adjusted to different heights above the transit head directly beneath the burette. A plane surface was mounted on the transit head, upon which a 2-inch square of bond paper was placed to receive a drop of blood. By allowing one drop of blood to be released from the burette nozzle by means of a stopcock, a blood pattern was made on the square of paper on the transit head. With one person operating the stopcock and a second person changing squares of paper, 100 patterns were made in less than an hour.

The plane surface was set successively at 15°, 30°, 45°, 60°, and 75°. These angles could be read to one minute of arc. The burette was placed at four different heights above the paper for each of the five angles. Thus, there were twenty combinations of angles and heights. For each combination one hundred drop patterns were made, making a total of two thousand patterns.

Approximately a pint of human blood was used in this study. As soon as the blood was drawn from its source it was agitated in a beaker with two drops of a sodium citrate solution in order to prevent clotting. The blood was then sealed in a container and refrigerated until used.

In order to determine the average size of the blood drops, one hundred drops were released from the burette and the loss in volume of the blood in the burette noted. Repeated releases of one hundred drops at a time showed an average loss in volume of the blood in the burette to be 4.7 cm³ per one hundred drops, or 0.047 cm³ per drop. Using the equation relating the volume and diameter of a sphere, the diameter of an average drop was found to be 0.448 cm or 0.18 in.

Since the contour of a drop pattern has the well known symmetrical upper part, which is approximately half an ellipse, and an irregular lower part, it became evident in preliminary attempts to measure drop patterns that a two-dimensional scale was needed.[4] This measure consisted of a two-inch square of glass etched with fine lines one millimeter apart, horizontally and vertically. The etched side of the measure was laid on the drop pattern with the lines of the measure parallel to the major and minor axes of the pattern, the major axis being used in a vertical position. The pattern and measure were then observed through a wide-angled magnifier. By this means the width of the minor diameter could be read to a tenth of a millimeter.

[1] Polzer, Wilhelm: Form— und Farbveränderungen des Bluttropfens. *Archiv Für Kriminologie*, *44*:326-329, 1911.

[2] Rizer, Conrad: *Police Mathematics*. Springfield, Illinois, Thomas, 1955, pp. 72-73.

[3] The letters b and a are commonly used in trigonometry to represent these half diameters. Because of their use in the equation of the ellipse these half values are preferable to the whole diameters.

[4] This type of measure was obtained from Lyman Nichols, Cherryhurst, Fort Collins, Colorado.

Address: Dr. Conrad K. Rizer, Department of Physics, Washington College, Chestertown, Maryland.

The value of b was found by dividing the width of the measured diameter by two.

It was not possible to find the value of a in the same way as for b because of the irregular contour of the lower part of the drop pattern. Therefore, an indirect method was devised using the coordinates of a point on the ellipse. The point chosen had the following coordinates

$$x = a \div \sqrt{2}, \quad y = b \div \sqrt{2}$$

A cord through this point and perpendicular to the major axis has a length $2y = \sqrt{2}b$, or

$$2y = 1.41b \qquad (1)$$

the term 2y being used as a single variable. The center of the cord is at a distance $a - (a \div \sqrt{2})$ units from the vertex of the major diameter. This distance was designated as n, so that

$$n = a - (a \div \sqrt{2})$$

or, solving for a

$$a = 3.44n \qquad (2)$$

With equations (1) and (2) available the value of a can also be determined in the following way. The value of b can be substituted in equation (1) and the resulting length 2y laid off as a cord on the symmetrical part of the pattern by the measure. The perpendicular distance from the cord to the vertex can then be read on the measure. This value is n and by the use of equation (2) a can be calculated. In order to save the time and labor of making calculations, tables based on equations (1) and (2) were devised. From b and a values sin θ and θ were obtained.

RESULTS

The data for this study is listed in Table I. The angle θ is between the vertical and the paper since the line of tangency is the vertical in each case. The angles were set on the transit. The height H is the distance from the end of the burette nozzle to the point directly below on the paper. The arithmetic mean M for each group of one hundred patterns was obtained from measurements and calculations of a and b values previously described. The standard deviation SD for each group was calculated in the usual manner.

There was marked variation in the standard deviation. One reason is that a liquid drop is not always in the shape of a sphere as it falls, but it pulsates between an ellipsoid and a sphere, causing variations in the a and b values. Another reason for variation in the standard deviation is that the blood in the burette became less homogeneous toward the end of making a sequence of one hundred patterns.

The calculated values of the angles for each group of one hundred patterns had a practically normal distribution about the mean. On this basis, by means of statistical analysis, it was found that in seventy-five per cent of the twenty groups the angular variation from the mean was three degrees or less. In the remaining twenty-five per cent of the groups the angular variation was four and one-half degrees or less.

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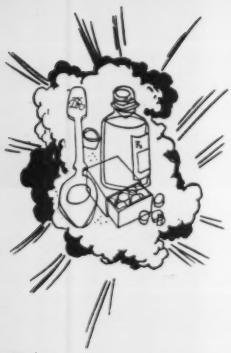
Thus, it is possible to say that the striking angle of a blood drop can be determined within the above limit.

The method for determining the striking angle of a blood drop which is outlined in this article could readily be used in practice. All that is required besides the drop pattern or its photograph is a measure similar to the one described in this article, a wide-angle magnifier or reading glass, the use of equations (1) and (2), and a table of sine functions.

TABLE I

θ	*H (in Inches)*	*M (in Degrees)*	*SD (in Degrees)*
15	12.75	14.91	0.977
15	24.75	15.00	0.538
15	36.75	15.05	0.858
15	48.75	15.34	0.534
30	11.62	29.68	0.598
30	23.62	30.10	0.753
30	35.62	29.48	0.672
30	47.62	29.64	0.961
45	10.50	44.70	0.902
45	22.50	44.67	0.548
45	34.50	45.00	1.294
45	46.50	45.35	1.337
60	9.25	59.85	0.573
60	21.25	59.56	0.855
60	33.25	59.98	0.632
60	45.25	59.81	0.726
75	8.00	74.95	1.050
75	20.00	75.25	0.900
75	32.00	75.05	1.503
75	44.00	75.04	1.153

★★★



The Packaging of Narcotics in Evidence

By Lieut. William King

RECENTLY the Los Angeles Police Department developed a new envelope for packaging seized narcotics. It is called the "Analyzed Evidence" envelope. Although it is used almost exclusively for booking narcotics, the word "narcotics" does not appear on the envelope itself. Some courts have criticized the use of the word "narcotics" or the word "dope" or any similar term as tending to prejudice the rights of the defendant in the eyes of the jury.

Previous to the adoption of this envelope, drugs to be analyzed were placed in regular manila envelopes, sealed, and booked in the property section. Early each morning, a chemist from the scientific Investigation Division took all packages booked the previous twenty-four hours to the Crime Lab for analysis. The results of the analysis were written on the outside of the package, which was resealed and rebooked in Central Property Division. When the case was called later in court, the package was taken from the Central Property Division by the analyzing chemist and presented in court.

Court appearances took an excessive amount of time, often tying up the entire staff a major portion of a day. To avoid this unnecessary waste of time, a legal stipulation form was developed by the District Attorney's office and printed on the outside of the new envelopes so that when the chemist wrote in his findings, the envelope and its contents were ready for court presentation and it was not necessary for the chemist to personally appear for testimony. This envelope with its legal stipulation has eliminated approximately 90% of the court appearances by chemists in such cases. At present, one chemist takes all cases to court, allowing other chemists to remain in the lab, but subject to call. The chemist with the packages for court arranges with the defense attorneys for the stipulation to be received in lieu of testimony often before court is in session and then returns to the lab. In case the defense attorney will not agree to the stipulation (which is rare), or some problem develops, the chemist is called from the lab. If the evidence is too bulky to be enclosed in the package, it is bundled and an evidence envelope is attached. The envelope is large enough to allow its use in 95% of all cases. An additional reason for a large envelope is to enable the chemist to fully describe all items and report his findings on the reverse side without cramping the writing. The envelope with the written material on it becomes a record in case the stipulation is accepted.

The description of the items found in the envelope are placed on the front and the findings on the reverse side. The package which had been opened by the analyst by cutting around the seal placed by the booking officer is resealed after analysis with two sealing wax seals bearing the thumb print of the analyst and then rebooked in Central Property Division. It remains there until called for in court when it is taken out and opened in court by breaking the seals. Thus, the integrity of the evidence is preserved at all times. The new package represents no so much a new preservation process as it does a way of presenting the findings of the chemist in court. For a time, it was feared that if the evidence of the chemist was stipulated to in the preliminary hearing, he would be called upon to testify in superior court at the final disposition of the case. However, a test run of many cases over a period of several months using a special printed form of this stipulation which was attached to the regular package showed conclusively that the incidence of being called to testify in superior court was no greater when a stipulation of the chemists findings had been agreed to at the preliminary hearing than when the chemist appeared in person and testified.

The envelope is superior to a special printed form because the form is occasionally lost or the wrong one attached to a package. In addition to this, all the identifying information on the front of the envelope had to be copied onto the special form.

Since chemists are probably no better at handwriting than non-chemists, a few minor problems such as being unable to decipher the chemists' writing have occurred. And like any new process, a few mistakes and misunderstandings have arisen. But these were quickly ironed out as soon as the investigators, the public defender, the court, and the deputy district attorney assigned the case all became familiar with the procedure.

The envelope is also saving considerable time of the court. While on the average, each chemist had one to three cases each day, occasionally, one chemist might have as many as 8 cases in a single afternoon. In such a case, if his appearance and testimony is necessary in each instance, many defendants and their attorneys will be kept waiting while the analyst goes

Address: Lt. William King, Scientific Investigation Department, Los Angeles Police Department, Los Angeles, California.

Form 12.51
March 1959

ANALYZED EVIDENCE

Los Angeles Police Department

Date 6/4/59	Booking Number 98742	DR Number 81786
Booked to John Doe		Division of Occurrence Central
Location 4th & Spring St.		Charge M.A.F.
Booked by Black # 16481. White # 13262		Division & Unit Fel. Car.
Articles Booked Brown paper bag with 20 cigarettes 3 Bindles of white powder Can of white powder		
	This is Pkg. No. 1	Total No. Pkgs. Narcotics 1
Special Instructions to Chemist Suspect says can of white powder is milk sugar.		
Co-Defendant Richard Roe		Booking Number 98743
Co-Defendant		Booking Number
Co-Defendant		Booking Number
Co-Defendant		Booking Number
Investigating Officer Central Narcotic Detail	Serial No.	Investigating Officer / Serial No.

Do Not Write Below This Line

REPORT OF ANALYST

The undersigned is prepared to testify that he is a Qualified Forensic Chemist employed by the Los Angeles Police Department as such, that he did this 5th day of June 1959 receive from the Property Division of the Los Angeles Police Department this package which was sealed with red sealing wax; that he took it to the Chemistry Laboratory of the Los Angeles Police Department and there opened it by cutting around the red sealing wax seal and examined the contents thereof; that he therein found the following:

WK-1 Envelope with 20 brown paper Cigarettes in a paper bag. Tested 4 & marked them K.

WK-2 Envelopes with 3 bindles of white Powder. about 2 grains each

WK-3 Can of white Powder

Front of envelope.

from one court to the other. However, with the stipulation, several cases may be handled simultaneously. Then too, if any officer is in superior court, is on vacation, is sick, on day off, or unavailable for any legal reason, the case may proceed with the stipulation without the necessity of either a new analysis by another chemist or a postponement of the hearing.

The envelope has enabled the Los Angeles Police Department to handle an increasing workload without employing additional analysts. The saving in time has

SID Number 50621

CHEMIST'S REPORT (Continued)

That he did make a chemical and physical examination thereof and formed the opinion that:

NK-1 Marijuana

NK-2 Heroin

NK-3 Lactose.

That he thereupon prepared this report, replaced all the items into the original container, closed it and sealed it with red sealing wax and returned it to the Property Division of the Los Angeles Police Department.

This 11th day of June, 1959, this package was taken from the Property Division of the Los Angeles Police Department in a sealed condition and brought to Division 40 Court by:

Chemist's Signature: William King

Signature: William King

Back of envelope showing sealing wax over sealed flap.

also enabled the staff to do some necessary research in drug analysis such as prepare absorption and x-ray diffraction curve standards on known drugs for comparison with unknown samples and other necessary work for smooth and efficient functioning of a first-class laboratory.

The captions shown here on both sides of this envelope are self-explanatory. ★★★

Acquiescence to Manslaughter

By Chief Edward J. Allen

EDITOR'S NOTE: *Chief Allen began his police career as a patrolman in Erie, Pennsylvania, in 1936, where he served in every division of the Department and in 1941 was assigned to work with the local FBI office in matters pertaining to internal security. He remained on loan to the FBI until January 1, 1946, when he returned to the Erie Police Department as a Detective Sergeant in charge of vice activities. He attended the FBI National Academy in 1947 and in January 1948, was appointed Chief of Police of Youngstown, Ohio, by newly elected Mayor Charles P. Henderson. In the ensuing six years, he reorganized the Department and instituted training courses for the entire Department. In addition to his other responsibilities, he organized and put into execution a traffic program which progressively reduced the number of traffic fatalities from an annual average of 34 deaths (for 25 years prior to 1948) to six deaths in 1953. In January 1954, Chief Allen was appointed by the then Governor (now U. S. Senator) Frank J. Lausche to the post of Chief of the Ohio Department of Liquor Control.*

In May 1955, the author was appointed Chief of Police of Santa Ana, California, as a result of a nation wide examination for the post. In that city, a stepped-up, impartial, but firm traffic enforcement program has kept the streets free from traffic fatalities since November 1957. Chief Allen has not neglected other duties of his position. Since 1955, major crime rates in Santa Ana have shown a marked decrease in proportion to population growth. Population has increased by over 15% since 1955 and Part I crimes have increased but 1.7%. During the year 1958, there was a numerical decrease of 3%.

BECAUSE of the weak, often apologetic, and ineffectual approach that law enforcement, in general, takes in the field of traffic enforcement, the annual slaughter on our streets and highways amounts to acquiescence to manslaughter.

It would seem from our approach that some syrupy notion with respect to "public relations" is taking precedence over our sworn duty: to preserve and protect lives and property, even at the expense of our own if necessary. If, as we should believe, our obligation is as "sacred and direct as the obligation of a soldier," then self-sacrifice becomes a duty in this regard. In our abysmal failure to properly enforce traffic laws, we embrace the very philosophy we decry in our schools and in our society generally: i.e., keep them happy, don't discipline them because they might not love us any longer. Sure, we know that annually approximately 40,000 citizens are violently slaughtered and thousands more are permanently crippled and dismembered. We further know, if we are honest with ourselves, that we can reduce this slaughter substantially by strict and impartial traffic law enforcement, yet we are deterred by a variety of mealy-mouthed reasons, all of which add up to the fact that if we did what we ought to do, we might expose ourselves to public censure — even loss of job.

Admittedly, this is a most serious consideration, and adheres tenaciously to the first law of nature which is self-preservation — the one law that needs no public relations program to achieve observance. Yet we ought to know that the best public relations grow out of strength, not out of weakness.

For the past several years national statistics reveal that less than 7,000 people each year have lost their lives by murder and non-negligent manslaughter. These are crimes which stir the conscience of the country, and well they should. Premeditation is a serious element in such crimes. Premeditation is not necessarily a factor however, if the homicide occurs during the perpetration of certain other crimes. Each year over five times as many are just as violently, often more cruelly, killed by the misguided weapon called the automobile. And invariably, a traffic law is being violated and is the direct cause of such wanton manslaughter. Thus, in both murder by all other weapons and manslaughter via the automobile, sudden and violent death is caused by other violations of law.

The question ought to be superfluous: Which violations of law ought we concentrate on if we are to protect and preserve the greatest number of lives and the greatest amount of property? Admittedly, it is more glamorous to catch bank robbers, burglars, thugs, and gunmen, but the record is incontrovertible — thugs or gangsters are not the people who kill most of our citizens or who cost us most of our money and loss of property by their illegal conduct. Our course is clear and the goal is most worthy, yet we hesitate, procrastinate, and find excuses, and our inaction contains in it the germ of craven fear. (Lest it be construed that I am finger pointing, be assured that I too am enveloped in this cloud of laxity.)

Enlightened police departments, for the most part, have adopted a policy of selective enforcement with respect to traffic laws. Through the study of accurate statistical records it is possible, therefore to determine the place, time, and cause of accidents. The theory is that once these facts are known the department can apply remedial patrol and enforcement measures, thus reducing accidents. This is a clinical approach not dissimilar to the studies the medical profession makes of the human body to determine the causes of illness.

Address: Chief Edward J. Allen, Police Department, Santa Ana, California.

Once having located the cause, and having available the remedy, what would you think of a doctor who would withhold the cure because he knew the patient would not like the taste of the medicine? Ridiculous? Even inhuman if the saving of a life hung in the balance? Unworthy of his profession? Afraid of criticism for prescribing a distasteful and disagreeable remedy?

Let us then turn to our own diagnostic records with respect to the traffic picture. Invariably we will find (and I speak of urban or city traffic) that violations of right of way, improper starting, turning, and passing are major causes of traffic accidents. As an example, I must refer to our own statistics in Santa Ana. Over the years, as compiled in monthly statistics, the record reveals that right of way violations are the cause of more than 25% of all city accidents. Speed averages about 15%. Drunk driving averages an approximate 3%. Crashing red lights or stop signs, about 5%; improper starting has often appeared as second only to right of way violations; the combination of improper turning, passing, and starting causes about 20% of the total accidents.

Now, the theory is that we ought to apply commensurate law enforcement against those violations which are causing most accidents. This makes sense. This is sound reasoning. The application of such remedial measures would cut down accidents and thus insure the saving of life, limb, and property. But do we do it? Study your own records. If you do, you are indeed an exceptional administrator, and you will have a remarkably low death and accident rate in traffic.

It is generally revealed that speed and red light or signal crashing constitute about 50% or more of the enforcement action of a municipal police department. Yet these violations constitute about 20% of the accidents.

It may be asserted with merit that this type of strict enforcement keeps the accidents down insofar as these violations are concerned. Since this is acceptable with respect to speed and signal crashing, it follows that it would be just as beneficial in right of way and improper turning, starting, and passing violations. But what does the record reveal regarding these violations? Our own statistics show that despite the fact that right of way violations cause at least 25% of the accidents, only 14% of our citations are issued for such violations. Improper starting, passing, and turning are the cause of 20% of our accidents and 15% of our citations are issued for such violations. I would guess that this enforcement action is much higher than the average judging from the complaints received that we are issuing too many citations for "minor" violations. If no accident is caused by a particular violation, the violator invariably regards his dereliction as a "minor" violation, even though the record reveals it as a "major" accident cause.

Such violators prate loud and long about the value of "warnings" with respect to these violations and oftentimes receive widespread support from those citizens, groups, and even newspapermen who are not aware of the seriousness of the situation. How often has the police officer heard this one: "Why are you giving me a ticket for this? I didn't cause an accident. A warning would suffice. I'm an intelligent person. Last week I was in (another community) and the officer stopped me for the same thing and gave me a nice talk on the matter. He was a gentleman and knew something about good public relations. A few months ago I was up north and another officer also cautioned me. This is the proper way and did me more good than getting this ticket. I may never come here to shop anymore. You're driving business out of the city." Analyze that statement. In the first place, if the warnings had done him so much good, why is he still violating the same traffic law? He states he didn't cause an accident. What then? Is there no acceptance of accident preventive enforcement? Must we wait until after the accident occurs? And as for business, is safety bad for business? Then millions of dollars are being wasted annually by private business and industry which hire high-salaried executives just to cut down accidents in their places of business. Indeed, industry and business of the blue chip variety always investigate the traffic safety and crime record of a community before deciding to locate. Traffic safety therefore is good business, materially, as well as being a life-saving business.

The other overworked word in traffic law enforcement is education. No one denies the value of education, but what is it that truly educates? Lectures, newspaper editorials, horror pictures of accidents, statistics, training films? Unquestionably such as these are effective and essential media of education, but the fact remains that the slaughter still continues and we have been in this "education" business for at least a quarter of a century. But there is another most effective and impressionable method of education and that is enforcement. I daresay the violator who finally got a ticket will be more observant of the law than he was because of a series of friendly "warnings" he received. There is no objection to warnings if the transgression in the officer's opinion is not serious, but those violations which are causing most of our accidents are serious. It is a waste of time, money, and effort if we diligently compile statistics to pinpoint accident causes and then fail to act to prevent such accidents. It is more than a waste of time, it is a dereliction of duty which stems from the fear of adverse public opinion. Yet it is folly for a police official to think he can escape censure and weakness to be affected by it.

At the risk of being accused of patting our own department on the back, it ought to be said that a stepped-up, impartial, but firm traffic enforcement program has kept the city streets of Santa Ana free from traffic fatalities from November 1957 to January 16, 1959 —a period of more than fourteen months. (One traffic fatality occurred on the Freeway not within the jurisdictional responsibility of our department.) For over

twenty years there has been an average of six deaths per year on our city streets. The population since that time has practically tripled and the car registration almost quadrupled. Any reasonable man must therefore conclude that good traffic engineering, plus a sound and strict enforcement program, contributes immeasurably to the achievement of a new all-time low in traffic fatalities in any given community. The record throughout Orange County (of which Santa Ana is the county seat) is just as gratifying. There are now some twenty communities in the county and considerable unincorporated area. During the years 1956 and 1957 the death toll soared to new heights in the county. There were 146 fatalities in 1956 and 152 in 1957, the all-time high. During the year 1958 more communities adopted radar speed devices in traffic law enforcement and otherwise stepped up their programs.

In addition, the California Highway Patrol revised their policies with respect to enforcement and patrol of certain highways and roads in the unincorporated areas. Perhaps the most significant asset, however, was the formation of a county-wide traffic organization comprised of the commanding officers in the traffic divisions of the various municipal departments and the California Highway Patrol. This group held monthly meetings for the purpose of analyzing the entire county-wide traffic picture as is done on municipal bases. Co-operatively then, all departments devoted more attention to the major accident causes as revealed in their statistical studies. As a result of this combination of improved methods and concentrated co-operative effort, the traffic death toll dropped from an annual all-time high total of 152 in 1957 to 102 in 1958. This is a reduction of 32.9%, by far the most phenomenal reduction of any of the 58 counties in the state — and Orange County is far and away the fastest growing county in the entire state.

The group is now spearheading the establishment of an intensive training school dealing with traffic problems within the county. It is our understanding that the California Highway Patrol is studying the results of the 1958 traffic fatality reduction in Orange County toward the end of encouraging the formation of similar county-wide traffic enforcement organizations throughout the state. It is accurate to state that no one community, or no single county can long remain an island with respect to strict and impartial law enforcement. It is only through concentrated co-operative effort, community to community, county to county, and state to state that the scandalous slaughter on our streets and highways can be appreciably decreased in our beloved country.

As police officials we not only have the remedy and the authority to administer it, but indeed, we have taken a sworn oath to discharge such clearly defined duties. A human life is of infinite value. Of greater value, indeed, than our own well-being and/or our jobs. ★★★

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A Study of the Use of Police Reserves or Auxiliaries

By Jacob A. Jessup

EDITOR'S NOTE: *In 1945, Chief Jessup resigned his position as a detective in a Northwestern city to complete the requirements for the Bachelor degree in police administration. On Commencement Day, among the items in his pocket was an appointment as Chief of Police in Kennewick, Washington. He subsequently became Chief of the Department of Public Safety, an integrated police-fire operation, in Sunnyvale, California. An article by Chief Jessup describing the organization and activities of his Department appeared in the November-December 1956 issue of the Journal.*

*Not a man calculated to take an important administrative step without careful study of the problem, he reserved final decision on the desirability of establishing a police auxiliary unit as a reserve force in Sunnyvale pending a survey of opinion on the subject among some of the nation's leading Police Departments. His findings below will come as news to many people in the American police field. On the other side of the picture, a notable work—*THE AUXILIARY POLICE UNIT, *Its Organization and Administration, by Lieutenant Everett M. King (author of* THE OFFICER SPEAKS IN PUBLIC*) of the Alameda County Sheriff's Department (Oakland, California) is now on the press and scheduled for publication in the early part of 1960. The Editor cordially invites comment from the field concerning this question of a police reserve force.*

FROM time to time it has been suggested that a police reserve unit be established in this City to augment the regular Department of Public Safety.

This year the department undertook a study to determine the advisability of the organization of a reserve group. Fourteen-police officials of as many departments were communicated with – some by personal interview, some by letter and still others by telephone. The officials generally indicated that the program is a World War II product. The reserve program is (or was), a civilian defense organization prepared for disaster situations and to supplement the local police service. Many localities during World War II saw their police personnel leave for the armed services, and population increasing due to war industry and military bases in the immediate area. Reserve groups fulfilled an immediate and real community need during this period. Many officials have continued the reserve group under the civil defense program, while others use the unit for assistance at special events, parades, seasonal activities and to accompany regular officers on patrol. Those departments allowing reserves to accompany the regular officers gave three reasons for this activity:

(1) Primarily for in-service training of reserve officers.
(2) Accompany officers in areas where assistance from other officers is limited by time and distance factors.
(3) Supplement the personnel strength of the Department.

The departments normally operate and favor the one-man patrol unit. Labor groups on occasion have opposed the use of reserve officers accompanying regular officers on the premise that if there are areas needing two-man patrol units, then regular department strength and personnel assignments should be corrected.

Much of the reserves' duty time consists of riding with a regular officer in a patrol car. The Governmental Research Institute study on the use of one-man patrol cars showed these advantages over the two-man car:

(1) Economically sound.
(2) Patrol increased in proportion to extra cars put into service; faster response on calls; better distribution of men with responsibility centered in more areas; people feel they are getting better police protection.
(3) Enforcement:
More efficient individual and overall performance; no distracting conversations with second man; eliminates personality clashes; less loafing and sleeping; credit given where credit is due.
(4) Personnel:
Personal safety is enhanced as officer realizes his vulnerability and is more cautious and ready to call for aid if needed.

The use of one-man cars, except in isolated cases, is recommended by most authorities in the law enforcement field. Use of reserve personnel in a patrol capacity where two-man units are not warranted, is, in fact, detrimental.

O. W. Wilson, Dean of Criminology at the University of California, in his "Police Administration" states: "A patrolman who is able to perform his duty satisfactorily while alone on foot should not find it necessary to have a brother officer accompanying him when he is equipped with the most modern means of transportation and communication. Two officers together spend part of their time visiting, swapping stories, neglecting their routine duties and there is greater temptation for them to be involved in small delinquencies and infractions of the rules. The presence of a second man

Address: Chief Jacob A. Jessup, Department of Public Safety, Sunnyvale, California.

may cause each to fail to take suitable precautions in an emergency lest his action be interpreted as cowardice. Each gives the other a sense of safety out of proportion to the added protection provided by the second man. When by himself, an officer is most likely to take suitable precautions in dealing with a hazardous situation. Whenever patrol cars are used, one-man cars should be instituted, unless the conditions are such that it would be unwise for foot patrolmen to operate singly."

There is also the problem that reserves are not on duty during those times when additional help is required for criminal or traffic problems. This survey indicates that most departments have no control as to the day of week, or hour of day that reserve personnel will be on duty. As a volunteer group, the majority of officials felt that only limited control may be established. Therefore, *all* departments must assign (and depend on) regular personnel on the basis of actual policing needs — not relying at all on the use of reserves.

Many officials indicated a large number of hours of reserve duty, but none were able to correlate the time worked and the times that policing needs were the greatest.

Those cities with many special events such as parades, sport events, fairs, or seasonal activities, all found the reserve group a valuable asset as the regular force was not adequate to handle these large events. Reserve personnel under the supervision of a few regular officers are capable of handling crowd and traffic control. Necessary training and experience for these assignments are not time consuming nor technical.

All officials stressed the importance of reserve selection, training and control. Valuable department personnel have to be assigned to this function when it could be better utilized for regular duty. The survey showed that the majority of these departments had no qualifying standards for the reserves.

All departments required fingerprints and a check for felony arrests. Applicants must be male and 21 years of age, with no upper limit . . . all were accepting men 45-60 years of age. The average age of the reserve group was approximately 45-50. Physical standards are waived in all the groups. Background investigative checks are not made because of cost and time involved. No written examinations are given.

The majority of the departments allow the reserve staff full control in *voting* members into the group even though the high standards established for police service are based on requirements necessary to perform the work involved. Many officials stated that with a group of volunteers (outside employment, families, other activities) it was impossible to make demands on their time for training. Law enforcement employment requires knowledge of laws, procedures and policies to such a degree that the field is seeking professionalization of the service.

This thinking is expressed by one of the nation's

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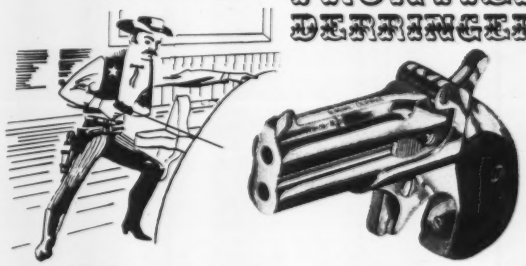

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In the last few weeks we have sold these all steel De Lux Model Frontier Derringers in .38 Special caliber to the following police agencies or their employees.

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California State Highway Patrol
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These officers are really satisfied with their guns. Many of them have told us that now that they have used them, they could not afford to be without this extra protection.

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Letter of Testimony

Gentlemen, Jan. 16, 1959

Reference is made to your shipment to me of one .38 Special Cal. Double Derringer under your invoice No. 27433. I want to thank you for your prompt handling of my order. I will also appreciate your sending me a price list of parts for this gun. Since I am something of a small arms expert and an army Ordnance Officer, you may be interested in my appraisal of this weapon. I had many misgivings about this weapon even after examining it. I had designed such a weapon based on the .41 double derringer some 25 years ago, but did not build one as my calculations indicated that the hammer blow at the lower barrel would not fire the primer. I ran your weapon through a pretty thorough test. I started with just primed cases. Then with 2 grains of Bullseye powder behind 148 grain bullets. I then went up in half grain increments until I reached 4 grains of Bullseye loads. The gun performed perfectly in both barrels. No looseness developed even with the 4 grains of Bullseye which is a much hotter load than factory ammunition. Of course with factory ammunition it also functioned perfectly. I tested it for bullet penetration into southern pine against my very fine 4" barrel Smith and Wesson .38 special revolver. With all loads the penetration of pine by bullets fired from each gun with the same powder charge were equal. In other words this little derringer will give the same bullet velocity as the standard 4" barrel revolver.

Even though the little gun has considerable kick, I did not find the recoil uncomfortable or objectionable. In fact I would like to have one designed for the .357 magnum ammunition.

This little gun is without doubt the most powerful gun for its size and weight that has ever been built. Also because of its size and power, it is the best personal defense weapon that I have ever seen.

The workmanship used in its manufacture does not come up to that used by Smith and Wesson, Colts and other manufacturers of fine guns, but this does not appear to affect the function of the weapon. I would be interested to know if the frame is a drop forging or a casting and what kind of steel is used in it.

Very truly yours,
M. O. WILBURN
339 South Perry St.
Montgomery 5, Alabama

recognized leading departments, the Los Angeles Police Department. In a reply from F. E. Walton, Commander, Patrol Bureau, Los Angeles Police Department, he stated *"While there is no question of their (Reserve) value to the community during a national emergency, it is the considered opinion of this department that the law enforcement job is so demanding that it requires full-time, trained, professional police officers."*

The Cincinnati and Milwaukee departments have the same conviction and will not allow reserves to perform, except during emergencies.

Control of the reserve groups varied in all departments. The majority of officials felt that the department – the Chief's Office – must have full authority and control, while a few considered that the reserve must be self-controlled and governed. No department had full authority and control. Much of this power was vested with a reserve staff, and in many cases this staff had full control. This is opposed to good personnel management, supervision and organizational practices. Officials again stated that with a reserve (volunteer) group it was not possible to maintain full control in the department and keep the group interest. Many chiefs have appointed regular officers as directors or as liaison officers to reserve groups with little or no authority.

Other problems noted in the study were:

(1) Employee morale on regular force was adversely affected:
  (A) Regulars exposed to criticisms for derelictions of auxiliaries.
  (B) Reserves not required to meet high standards expected of regulars as to:
    (a) Entrance requirement.
    (b) Work performance.
  (C) Regulars are full time professional career officers. Reserves cannot be expected to devote themselves to the job on this basis.
  (D) Regulars feel that reserves stunt the growth of the department by:
    (a) Using volunteers in a professional field in place of someone who should be hired for that duty.
    (b) Lessening the opportunities for advancements.
    (c) Reducing the initiative of regular officers.
  (E) Career officers are burdened with inexperienced help.
  (F) Reserves carry gossip about personnel, assignments and the department.

(2) Uniform to be worn by reserve:
There was disagreement among officials as to uniform specifications for reserves.
  (A) Uniform should be different (color, cut, or style) to indicate to the public that officer is not a regular member of the department.
  (B) Uniform should be same but require that badge, hat piece and shoulder patch indicate "Reserve Officer", "Special Officer", or "Auxiliary Officer."
  (C) Uniform should not differ from regular officer, except for a small letter "R" on badge. Officers in most departments have objected to having reserves wearing regular uniform.

(3) Rank within the reserve group conflicts between regular officers and reserve rank.
  (A) Public accepts rank, regardless of organization.
  (B) The regulars are required to obtain years of experience and training toward promotion and subject to Civil Service procedures.
  (C) Ranking reserve officers have a tendency to attempt control of the regular officers' performance of duty.

(4) Off Duty Reserve Activity.
  (A) Reserves in many cities have used position for personal gain. This activity included obtaining jobs, meals, entrance to theatres and sporting events and attempting to evade legal responsibility.
  (B) Cases were reported of officers entering and using improper authority in public safety matters, while off duty, such as, stopping cars for traffic violations, neighborhood problems, giving legal advice, carrying and displaying weapons.
  (C) Departments are not in a position to control actions of reserves off duty as is possible with regular officers. This would apply to appearance, credit standing, habits – drinking, gambling, etc.

The Cincinnati Police Department wrote: "We have been unable to attract the caliber of men we want in our auxiliary force in sufficient numbers. It is extremely difficult to maintain a continuous policy of an active auxiliary police program without being pressured into arming these men, vesting them with police powers and employing them in a more active capacity; our department would frown on such a policy since it would tend to detract from the professionalization of the police service."

The following is quoted from material received from the Milwaukee Police Department:

"During the more than a century of the department's history, there has never been the need for an organized group of citizens to take over the duties and functions of the department. The auxiliaries in Milwaukee are strictly a civil defense force and are never used in routine police work. We, on the Milwaukee Police Department, have been positive in our thinking insofar as such a force is concerned, believing that the auxiliary is strictly a standby group of civilians, to augment the regular force in the event of an enemy caused emergency."

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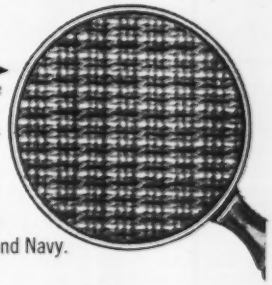

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The regular officer, as contrasted with reserve personnel, is hired only after meeting high standards of qualifications, in competition with other applicants and is required to:

(A) Develop skill and knowledge of the service.
(B) Maintain a high level of performance.
(C) Satisfactorily pass evaluation periods.
(D) Properly uniform and equip himself, and
(E) Develop interest, esprit de corps, initiative, etc.

These qualities can only be obtained in men devoting themselves to a career in the police service.

At the completion of this study it was decided that:

(1) It is not feasible or desirable to substitute a reserve officer in an area where there is a need for a regular officer.
(2) The formation of the reserve group tends to set aside the Civil Service (Merit) system in Municipal government and to return to the spoils system.
(3) Enlightened police administrators are firm in their stand to resist the lowering of the police service entrance or performance standards.

CONCLUSION

This study has led us to the conclusion that the formation and use of a police reserve in Sunnyvale is not in the best interests of the public and the police service

★ ★ ★

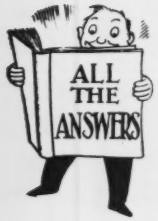
A LETTER TO THE POLICE FIELD FROM THE PRESIDENT OF THE UNITED STATES

A letter of greetings was sent by President Dwight D. Eisenhower to the International Association of Chiefs of Police at their October 1959 Annual Convention in New York City. He wrote:

"The growth of population and the complexities of modern life have added increasing burdens to the responsibilities of the police and other law enforcement officers. Today, more than ever, it is essential that our communities have an honest, intelligent and efficient police force for the protection of each individual citizen and the general welfare of all.

"To those who believe in democratic government, it is a source of satisfaction that our police forces and those of many other countries have become symbols of freedom, not oppression. By their conduct, the police inculcate a deep respect for the law and obedience to its mandates.

"Without this, free government cannot prevail."



Sources of Information

By Carroll S. Price

EDITOR'S NOTE: *The author was an Instructor in Police Science at the University of Missouri from September 1956 to August 1958 when he accepted a similar position on the Police Science staff at Long Beach State College. He received the Master's degree in education at the University of Missouri during the summer of 1958, and is now working toward the degree of Doctor of Public Administration in the law enforcement major at the University of Southern California.*

A member of the Missouri State Highway Patrol from 1952 until he came to the University of Missouri, Mr. Price served as law enforcement coordinator in Adult Education and Extension Service, university investigator, polygraph instructor and examiner, and assistant to the Director of Traffic Safety. For ten years, he was a member of the Missouri National Guard and was assigned as Investigation's Officer with the 175th Military Police Battalion with the rank of Captain. He has been a member of the American Academy of Polygraph Examiners, the Missouri Police Chiefs' Association, Associated Police Communications Officers, Inc., the Missouri Peace Officers' Association, the American Society of Criminology and Lambda Alpha Epsilon, National Police Honorary.

Sources of Information constitute one of the most important investigative tools at the disposal of the police. In the following series of two articles the author makes available suggestions which can be put to important use by every police officer and detective.

A source of information is any person, record, custodian of records, directory, public official, business official, or similar organized source of recorded data which may be of assistance in the investigation of a crime. No one can expect an investigator to retain all of the information he will need to solve a crime; however, many times the difference between a good investigator and an average investigator lies in the knowledge that the good investigator has concerning possible sources from which information can be obtained. In most law schools future lawyers are not taught to remember every law and every court decision. They are taught *where* they can find this information. And so it is with the investigator. He should learn where the best sources of information are located and should be constantly on the alert for new sources.

Investigators must learn the sources of information available to them in each locality. Efficiency in utilizing various sources of information is essential to successful investigations. An investigator cannot force another person to divulge information or compel another to make records, that are in his possession available to the investigator. This is a function of the court. However, in many instances, it will be possible for the investigator to obtain this information by proper coordination and cooperation with the individual or organization having the records.

Address: Carroll S. Price, Department of Police Science, Long Beach State College, Long Beach, California.

RECORD SOURCES

The following is a list and brief description of some possible sources of recorded information:

A. Federal Records

1. *United States Social Security Administration,* Baltimore, Maryland. Certain information can on file regarding anyone who has been registered under the social security laws. Such information as work record, name of parents, etc., is maintained in this office.
2. *Department of Defense*
   a. Department of the Army, Office of the Adjutant General, Army Records Center, St. Louis 14, Missouri: This office has the military record of all ex-service men of the Army, Navy, Marine Corps, and Air Force.
   b. Department of the Army, Office of the Adjutant General, Washington 25, D. C.: This office maintains a record of all members of the Army that are on regular duty or in the reserves.
   c. Assistant Chief of Staff, G-2, Department of the Army: This is an additional source of information concerning members of the Army and civilian employees.
   d. Bureau of Naval Personnel, Washington 25, D. C.: This office maintains a record of all members of the Navy and Marine Corps that are on regular duty or in the reserves.
   e. Office of Naval Intelligence, Department of the Navy, Washington 25, D. C.: Additional information concerning members of the Navy and Marine Corps can be obtained from this office.
   f. Department of the Air Force, Office of the Adjutant General, Washington 25, D. C.: This office maintains records of all Air Force personnel on active status and members of the reserve components.
   g. Office of Special Investigations, The Inspector General, United States Air Force: Additional information concerning members of

the Air Force can be obtained from this office.

h. Commandant, United States Coast Guard, Washington 25, D. C.: This office maintains records of members of the Coast Guard.

3. *Department of Justice.*

a. Federal Bureau of Investigation. The FBI has on file fingerprint cards on many classes of persons, card indices on all persons whose names have come to the attention of the FBI, and a complete scientific laboratory for analyzing and identifying criminal evidence.

b. The Immigration and Naturalization Service. This agency has photographs, fingerprints, and brief biographies of aliens and immigrants, their residence and employment addresses, and the status of their naturalization. To aid in identifying the subject, the investigator should provide the Immigration and Naturalization Service with the name of the vessel, the date, and the port of entry if this information can be obtained.

4. *Department of the Treasury.*

a. The United States Secret Service. This agency suppresses counterfeiting and protects the person of the President.

b. The Bureau of Narcotics. This agency investigates violations of Federal Narcotic Laws.

c. The Intelligence Unit Bureau of Internal Revenue investigates violations of federal income tax laws.

d. The Alcohol Tax Unit Bureau of Internal Revenue investigates violation of the laws relating to manufacture, storage, and sale of alcoholic beverages.

e. The Bureau of Customs enforces the customs laws, supervises the importation of articles into the United States, patrols the borders of the United States, and apprehends smugglers.

5. *The Post Office Department.* The investigator should coordinate his activities with the postal inspector or postmaster to assure full cooperation. Usually the Post Office Department will provide the investigator with all the information which appears on the outside of envelopes and packages in the United States mail addressed to a particular individual. This service is known as a "mail cover" and will be continued for a specific period agreed upon by the investigator and the postal authorities. Mail may not be read except by censorship (as in penal institutions) or when seized pursuant to a search warrant. In securing a search warrant for mail the investigator should confer with the local postal inspector.

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6. *House Committee on Un-American Activities.* This committee maintains a file on persons investigated regarding un-American activities.
7. *Central Index Personnel and Facility Security Clearance File (Department of the Army.)* Records will be found in this file on individuals who are or have been officers, owners or employees of a firm which has or has had a Department of Defense classified contract.
8. *Other Federal agencies which have investigation units.*
   a. Division of Investigations, Interior Dept.
   b. Wages and Hours Division, Labor Dept.
   c. Division of Investigation, United States Civil Service Commission.
9. *The Veteran's Administration* has information relating to ex-servicemen and women of the Armed Forces of the United States.
10. *The United States Maritime Commission* has records relating to the activities of the Merchant Marine and its officers and crews.
11. *The Department of State* has information relating to passports and visas.
12. *The Federal Communications Commission* investigates and reports on all organizations engaged in interstate radio or wire communication, and licenses and monitors in all radio stations.
13. *The Civil Aeronautics Administration* (Department of Commerce) records information on:
   a. All civilian planes
   b. Pilots
   c. Instructors
   d. Civilian permits issued
   e. Applications for permits
   f. Data on air strips

B. State Records (Based on the state government of Missouri)

1. *State Highway Patrol*
   a. Bureau of Criminal identification
   b. Auto Theft Bureau
   c. Criminal Laboratory
   d. Accident Record Bureau
2. *Division of Corrections*
   a. Prison records
   b. Parole records
3. *Department of Liquor Control*
4. *Departments of Public Health*
   a. Vital Statistics: Records of all births, deaths, and marriages are kept in this office. Some information to be found on the birth certificate would include:
      (1) Date of birth
      (2) Place of birth
      (3) Name of father and mother
      (4) Any abnormalities noted by the doctor at the time of birth (birth marks, etc.)
      (5) Name of the doctor in attendance at birth
      (6) In some states footprints are recorded on birth certificates
   b. The Welfare Division maintains a record of all persons who have received or are now receiving state aid
   c. A record of all state hospital employees and patients is maintained
5. *State Adjutant General.* The Adjutant Generals Office is charged with the maintenance, preservation, and safekeeping of the individual military records of Missourians who have served in the armed forces of the state and nation including all military organizations authorized by law and functioning in peacetime and war.
6. *Secretary of State*
   a. Commission Department
      (1) This office maintains records of all officers elected to state, district and county offices.
      (2) A record of all of the governor's official acts is maintained such as proclamations, executive orders, etc.
      (3) Notary applications are filed here, the commissions prepared, and the bonds filed. Records of other documents are maintained here, such as, extraditions, commutations of sentence from state penal institutions, restoration of citizenship and transfers from various state institutions, and authentication and certificates pertaining to records on file in the office. Trade-marks and certificates of such registration are furnished.
   b. Land Office
      (1) The land department of the office has charge of records of the earliest titles to the first lands settled within the boundries of the state. Records of federal land grants to the state embrace more than 6,500,000 acres.
      (2) The records of the confirmation and sale of land according to laws passed by the legislature, the records of the patents by which the state passed title to the purchaser or to the counties, and also the Field Notes and Plats of all the original government surveys are kept in this office.
   c. Publications Department. This department compiles and edits the "Official Manual of the State of Missouri" or "Blue Book" as it is generally called. This is the source ma-

terial of much of the information in this chapter. Other important publications are edited by this department.

d. Corporation and Securities Department
   (1) Any corporation organized under the laws of the state and any foreign corporation operating in the state must file articles of incorporation with this office and must file annual registration reports and antitrust affidavits.
   (2) The corporation department also handles the registration of fictitious names, the chartering of agricultural associations, mutual insurance companies, loan and investment companies, credit unions, non-profit co-operative associations, benevolent associations, declarations for organizing stock, fire and accident insurance companies, and various other types of insurance companies.
   (3) Dealers in securities and their salesmen are licensed in Missouri and regulated by this office.

7. *Office of the State Auditor.* This office maintains records of all state audits of state agencies and certain counties within the state. Records of bonds issued by political subdivisions of the state are also kept.
8. *Office of the State Treasurer.* This office maintains records of all state banking operations and state bonds issued.
9. *Office of the Attorney-General.* The Attorney-General maintains in his office indexed copies of all written opinions. The index is set up on a day-to-day basis and provides ready reference to all opinions which have been written by the office since 1933. Much advice and many pertinent suggestions can be obtained from this office by the investigator in matters concerning criminal prosecution.
10. *Department of Business and Administration.* This department has a wealth of information in the files and records of the ten component divisions. The divisions are as follows:
    a. Division of Athletics
    b. Division of Finance
    c. Division of Geological Survey and Water Resources
    d. Division of Insurance
    e. Personnel Division. This office maintains a record of all state employees who come under the merit system.
    f. Public Service Commission
    g. Division of Resources and Development.
    h. Division of Savings and Loan Supervision
    i. Bi-State Development Agency (Missouri and Illinois)
    j. Tennessee-Missouri Bridge Commission.
11. *Department of Conservation.* This department maintains records pertaining to conservation activities that may be of help to the investigator.
12. *Department of Education.* Many records pertaining to public school activities are maintained in this department.
13. *Division of Registration and Examination.* This division has much information regarding the professional people of the state. The following boards are assigned to the division:
    a. Missouri State Board of Accountancy
    b. State Board of Registration for Architects and Professional Engineers
    c. State Board of Barber Examiners
    d. State Board of Chiropody
    e. State Board of Chiropractic Examiners
    f. State Board of Cosmetology
    g. Missouri Dental Board
    h. State Board of Embalming
    i. State Board of Medical Examiners
    j. State Board of Nurse Examiners
    k. State Board of Optometry
    l. State Board of Osteopathic Registration and Examination
    m. Board of Pharmacy

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14. *State Service Officer's Department.* Many records of veterans of all wars and their dependents are maintained in this office.
15. *Civil Defense Agency.* Records and information pertaining to civil disasters and plans for civil defense are available through this office.
16. *Department of Labor and Industrial Relations.* Some division under this department which are possible sources of record information are:
    a. Division of Workmen's Compensation
    b. Division of Employment Security
    c. Division of Industrial Inspection
    d. Division of Mine Inspection
    e. State Board of Mediation
17. *Department of Revenue.* This is one of the principal sources of information regarding motor vehicle registration and driver's license. Some of the divisions under this department include:
    A. Division of Collection
        (1) County Tax Supervision
        (2) Income, Inheritance, Intangible and Corporation Franchise Taxes
        (3) Motor Vehicle Registration and Drivers License. Much information regarding the ownership of an automobile or truck and drivers' licenses can be obtained from this department. Such information might include:
            (a) Type of car, motor number, and license information
            (b) Address of owner at time of purchase
            (c) Amount paid for the vehicle
            (d) A record of traffic offenses from all states is maintained in the drivers license department.
        (4) Safety Responsibility Unit. This office maintains a record of all accidents in the state in which there was a personal injury or damage of more than one hundred dollars.
        (5) Oil Inspection
        (6) Sales Tax

C. County Records

1. *County Court.* Maintains some records of county activities which may be of value.
2. *Magistrate and Circuit Court Records.* Information regarding previous convictions and criminal records are usually available in the records of these courts.
3. *County Recorder's Office.* Most official transactions involving business and real estate are recorded in this office.
4. *Other county offices* which are possible sources of record material are:
    a. Prosecuting Attorney
    b. Sheriff
    c. Collector
    d. Assessor
    e. Treasurer
    f. Coroner
    g. Public Administrator
    h. Surveyor
    i. Highway Engineer
    j. Superintendent of Public Schools

D. City and Municipal Records

1. *City Police and Fire Department Records.* These records are many times excellent sources of information regarding local citizens and their activities.
2. *Public Utilities.* Records from the utilities owned and operated by the city are often valuable sources of information. In most cities or municipalities we find:
    a. Health Department
    b. Water Department
    c. Post Office
    d. Street Department
    e. Other Utility Departments

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E. Private Records

1. There are many companies and corporations that maintain records which would be of great value to an investigator.
2. Private utility companies give about the same information as public companies although they may not feel as equally obligated as public companies to divulge information.
3. Telephone companies. The use of the telephone directory can many times save a lot of legwork.
4. City Directories. They are usually compiled by private companies and have a wealth of information about people living in the city. These are usually available at the city police department.
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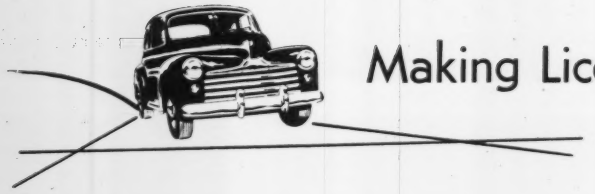
8. Clubs; Local, State and National Associations; and other similar groups. Information is not always available from these sources but, many times, with a little effort the information desired can be obtained.
9. Insurance Companies and Underwriters.
10. National Automobile Theft Bureau.
11. Other private sources.

EDITOR'S NOTE: *Watch for the second and final installment in this series of two articles in which the author will consider the function and use of* INFORMANTS. ★★★



Making License Plates More Legible

By Dr. A. R. Lauer

EDITOR'S NOTE: *This is the second in a series of two articles concerned with the design of automobile license plates, a subject of more than ordinary interest to the police in the course of their daily investigative activities. The first article appeared in the November-December, 1959, issue of POLICE.*

THE EFFICIENCY of color schemes of different types of plates varies considerably. Inquiry regarding the reasons for using different colors were sent to several states known to be progressive in this respect. Replies were received from nine motor vehicle departments. A few statements are quoted. Excerpts from letters are numbered and direct quotations made from them.

1. "The different color arrangement of license tags are for the purpose of assigning tags to various types of vehicles, such as passenger cars, trucks, motorcycles, dealer's cars, commercial and official cars. The color for the year is decided upon for the passenger car. For example, if a maroon background with white numerals is selected, perhaps a combination of these colors are used for other vehicles. For example, a white background with maroon numbers for trucks or dealer's cars, etc., may be selected.

An effort is made to have a decided contrast in color arrangement in states contiguous to one another. This is desirable from the standpoint of law enforcement. Officers can tell at a glance in which state the car belongs. While this is given as a statement there has been no systematic attempt to develop a nationwide system which would guarantee that such a plan would be used."

2. Another reply was received which went as follows: "We use different colors for our license plates each year. I think the reason for using a different color each year is to discourage the use of last year's license plates during the succeeding year. I think there are very good reasons for adjoining states to use different colors for license plates."

3. "A different color scheme is used each year as the motor vehicle law provides that the color scheme cannot be repeated for a period of five years and this practice is also to aid the enforcement officers in determining whether new plates have been secured or not. Attempts have been made by this state so that the colors will not conflict with the colors used by bordering states, and it is my opinion that the bordering states likewise make an attempt to avoid confusion which would result if the plates of all bordering states were of the same color."

4. "We wish to advise that we have adopted state colors which are blue and gold for automobile license plates, alternating colors each year." It is not stated what is alternated but presumably the background and numerals are alternated.

5. "Our practice has been to use the same color scheme each year except in connection with registering some classes of vehicles and we have the colors in reverse on these vehicles from what we have on others. The advantage in adopting a different color scheme each year for number plates is that it makes any illegal use more difficult than if the same color scheme were used all the time. It is presumed the chief reason why adjacent states use different color schemes on their number plates is that it makes identification of cars easier for enforcement officers as soon as they become accustomed to the colors in use in the several states and this is sometimes a help in a difficult case of identification where it is not always possible to read the inscription upon the plates."

6. "We alternate the colors on the plates each year. The colors for one year being orange background and black figures and for the next year being black background and orange numerals. It is our opinion that it is preferable to have adjoining states use different colors as identification, as it would be easier to identify them when operating in the same territory which is the case along the borders."

7. "Different colors are used on various license plates for the reason that it is easier for the inspectors, the state highway patrolmen and local officers to locate stolen cars as they can tell immediately whether or not the plate is a current year license. Ordinarily the same colors are not used on the same class of vehicles within a period of five years. Our license plates also show the class of vehicles. For example, C-M for commercial plates, M-B for motor bus plates, and T-R for trailer and tractor plates."

8. "We have never used two colors during the same year, but we have used a different color each year. In this way we endeavor to have our plates of a distinctive color from adjacent states for easy identification." It is not stated in the letter the method by which the effort to keep plates of distinctive color from adjacent states is accomplished.

9. "We are very much interested in the approach

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you are making. Most of our practices in use today have been the results of a cut and try method of finding the most practical way to handle certain situations.

The reason that we change the color of our plates each year is that if we did not do so it would be impossible for the highway patrolmen of the various states to determine who were resident and who were non-resident users of the highways of various states. Our state alternates with another state in the color scheme of its plates.

For one or two years there were two different colors of plates used in this state in the same year. One was used for one type of vehicle and the other for another. At present we designate the different vehicles by letters. Exempt plates given to public service vehicles have the letter PS in front of the figures."

Thus it will be seen there are a number of reasons given by states for choice of plates and they all seem to be slightly different. In a review of these comments it is noted that most of the states: (1) change colors each year, (2) try to have colors different from adjacent states, and (3) have no definite system for either. A few have standard color combinations which they alternate as background and numerals. One or two states use more than one color each year to designate different types of cars. The reason given in practically all cases is to facilitate identification and discourage illegal use of plates.

THE NEED FOR A UNIFORM SYSTEM

It seems necessary to call attention to the inadequacy of the methods used by the separate states in selecting color combinations for license plates. It may be helpful also to suggest a means whereby each state may have one of the most efficient color schemes that it is possible to find. By using a standard national system each motor vehicle department would know several years in advance just what combination was to be used for any given year. This would assure the use of plates which are not identical in color by states which adjoin. By such a plan the color combination of automobile license plates could be uniform throughout the United States from year to year.

The system proposed involves nine different combinations. Any state which wishes to use other colors than those recommended, particularly for use with different types of vehicles, would be privileged to do so. Passenger cars would use the recommended color. Auxiliary colors should be different from the colors of adjoining states. Maroon and white, red and metallic gold, or some other secondary color combination could be used for this purpose.

WHAT ARE THE BEST COLORS?

From the study of 114 license plates it was noted that 51 color combinations were used during one year. It is possible even more have been used at one time. The most frequent combination was black figures on a white background. We shall designate this as black on white. It made up about 10 per cent of the total number. The next most frequent combination was white numbers on a violet-blue background. The third most frequent combination was black numbers on an orange background. This combination was used in about five per cent of the cases. The fourth most frequent combination was yellow-orange numbers on a black background. The yellow-orange was lighter yellow than the orange-yellow. This combination was used on five per cent of the plates. The next most common color combination used was white numbers on a green-blue background. This was used in about four per cent of the cases. White on a light green was used in four per cent of the combinations. Several other color combinations were used on the plates and the frequencies shaded down to something less than one per cent. A table of combinations used is too long for reproduction here and we can only indicate some of the possibilities. Reds and greens were used in various combinations with white and yellow. Both combine quite well with white. In at least two instances very *undesirable* combinations were found. One state used a dark green plate with black numbers. These colors are difficult to read in low illumination. Another state used dark red legend on a black background. This was

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extremely difficult to read since red tends to get darker in low illumination. Blues tend to appear brighter and are relatively more conspicuous in poor light.

There is also some tendency for states to use two very light colors together. For example, a light blue background with white figures. This is quite legible in daylight, in fact it held up quite well in relative efficiency, but was very bad for low illunination. There was not enough contrast.

Ignoring the shadings of colors there were at least 26 basic color combinations used in one year. While 13 states were reported to have adopted the practice of alternating standard combinations of colors it was not stated exactly what they meant by alternating. Many of the color combinations used are very inefficient apart from other features of the plate.

In some instances it is noted that neighboring states have identical colors. Two nearby states had color schemes of white and blue in one year. Two other adjacent states had black on white the same year. Even though the color combinations are efficient they defeat the purpose of using colors for designating license plates as states by motor vehicle departments quoted. As is known, the reds, oranges, yellows, greens, blues, etc. used are quite variable. Some states use exceptional colors. Choice of license plate colors should be based on legibility in high as well as low illumination.

CHARACTERISTICS OF COLORS USED

There are two methods for the description of colors which are in common use. One is by subjective comparison with standards such as the Bradley color scheme or some other. The other is to use one of several commercial color analyzers that are available to determine the exact wave-length of colors. One of these standard methods should be used rather than to simply stipulate a color as blue, green, yellow, or some other. Considerable variation is found between various greens, blues, yellows, oranges, reds or others.

Along with variation in color is that of reflection factor. Reflection factor refers to the amount of light that is reflected by components of the plate. If a light is thrown on a white paper, approximately 85 to 90 per cent will be reflected. If a light is thrown on a black surface of a plate as little as four or five per cent, or less, may be reflected. The difference between the reflection factors gives the amount of contrast and it is very important in making a plate efficient. Thus the reflection factor of plates can be described quite exactly if one cares to go into the details of doing so. This probably is not always necessary and we shall describe the colors by the use of common words which will give a fair idea of colors found most efficient on the plates studied.

By a careful study made both in the laboratory and on the field, it was found that the most efficient colors could be determined. No attempt will be made to go into details of why the differences exist but merely to list the order which they ranked in efficiency. No explanation can be offered for 8 and 9.

TABLE I
MOST EFFICIENT COMBINATIONS FOUND

	Combination Background	*Number*	*Difference in Reflection Factor in Per Cent Approximate*
1	white	black	80
2	medium green of bluish cast—very light color	black	40
3	light gold	black	40
4	metallic aluminum*	dark blue	40
5	bright yellow	dark blue	40
6	medium blue—light	black	40
7	yellow-orange	black	40
8	white	dark red	60
9	black	yellow	50

* It is difficult to measure reflection factor of aluminum accurately as the surface acts somewhat in the fashion of a mirror.

Some other combinations have been used for trucks and other vehicles which might be designated as secondary colors, but need not be discussed at this time. All were less efficient than those in the table.

It will be noted that some of these colors do not appear as being the best that could be picked. The reader may also note that in general the difference in reflection factor between legend and background of efficient plates is between 40 and 50 per cent. It seems to require about this much difference for an efficient plate from the standpoint of legibility.

The reasons for using some of the less efficient colors in those chosen was to get enough combinations which might be worked into a system. Thus white on black, or black on white, are by all odds the best combinations that can be used. However, since the states might want to reverse their colors on certain commercial vehicles we have tried to select nine combinations which were entirely different. For example, No. 1 is white with black letters; whereas No. 8 is white with dark red letters. Actually white on black is the most efficient combination, but in order of selection the white with dark red gives a very close second rating to white on black. The recommended colors were not perfect but were found to be superior to many of others that are in common use.

THE ROTATION SYSTEM

A check of the practicability of using a rotation system for the United States was made by using maps and assigning numbers to each state. By a careful comparison of the map it was noted that states differ considerably. While the rectangular states, such as Colorado and Iowa, tend to be bordered by four or five states on the average, certain states like Tennessee and Kentucky have several others touching them. Tennessee is bordered by eight other states. This would mean that in order to have color combinations

differ each year there would need to be nine different color combinations in effect as shown in the table. Kentucky has seven bordering states but eight states border Tennessee as described. Eight states also touch the border of Missouri.

Thus the nine best color combinations found by testing would be sufficient to establish a scheme for use of all of the states. By an elaborate process of trial and error it is possible to determine how many combinations would be needed to rotate every year. The number as representing the nine different combinations were carefully allocated on the map for each of nine years arranging them in such a manner that the color combinations were systematically distributed among the states.

TABLE II
ROTATION SCHEME FOR AUTOMOBILE LICENSE PLATES IN THE UNITED STATES

	1957 1st Year	*1958 2nd Year*	*1959 3rd Year*	*1960 4th Year*	*1961 5th Year*	*1962 6th Year*	*1963 7th Year*	*1964 8th Year*	*1965 9th Year*
Alabama	7	8	9	1	2	3	4	5	6
Arizona	6	7	8	9	1	2	3	4	5
Arkansas	8	9	1	2	3	4	5	6	7
California	7	8	8	1	2	3	4	5	6
Colorado	4	5	6	7	8	9	1	2	3
Connecticut	3	4	5	6	7	8	9	1	2
Delaware	9	1	2	3	4	5	6	7	8
Dist. of Columbia	1	2	3	4	5	6	7	8	9
Florida	2	3	4	5	6	7	8	9	1
Georgia	5	6	7	8	9	1	2	3	4
Idaho	3	4	5	6	7	8	9	1	2
Illinois	4	5	6	7	8	9	1	2	3
Indiana	5	6	7	8	9	1	2	3	4
Iowa	6	7	8	9	1	2	3	4	5
Kansas	3	4	5	6	7	8	9	1	2
Kentucky	2	3	4	5	6	7	8	9	1
Louisiana	4	5	6	7	8	9	1	2	3
Maine	9	1	2	3	4	5	6	7	8
Maryland	8	9	1	2	3	4	5	6	7
Massachusetts	1	2	3	4	5	6	7	8	9
Michigan	1	2	3	4	5	6	7	8	9
Minnesota	3	4	5	6	7	8	9	1	2
Mississippi	3	4	5	6	7	8	9	1	2
Missouri	9	1	2	3	4	5	6	7	8
Montana	9	1	2	3	4	5	6	7	8
Nebraska	7	8	9	1	2	3	4	5	6
Nevada	5	6	7	8	9	1	2	3	4
New Hampshire	7	8	9	1	2	3	4	5	6
New Jersey	2	3	4	5	6	7	8	9	1
New Mexico	1	2	3	4	5	6	7	8	9
New York	6	7	8	9	1	2	3	4	5
North Carolina	4	5	6	7	8	9	1	2	3
North Dakota	4	5	6	7	8	9	1	2	3
Ohio	7	8	9	1	2	3	4	5	6
Oklahoma	5	6	7	8	9	1	2	3	4
Oregon	4	5	6	7	8	9	1	2	3
Pennsylvania	4	5	6	7	8	9	1	2	3
Rhode Island	5	6	7	8	9	1	2	3	4
South Carolina	8	9	1	2	3	4	5	6	7
South Dakota	5	6	7	8	9	1	2	3	4
Tennessee	1	2	3	4	5	6	7	8	9
Texas	7	8	9	1	2	3	4	5	6
Utah	2	3	4	5	6	7	8	9	1
Vermont	8	9	1	2	3	4	5	6	7
Virginia	6	7	8	9	1	2	3	4	5
Washington	1	2	3	4	5	6	7	8	9
West Virginia	3	4	5	6	7	8	9	1	2
Wisconsin	8	9	1	2	3	4	5	6	7
Wyoming	8	9	1	2	3	4	5	6	7

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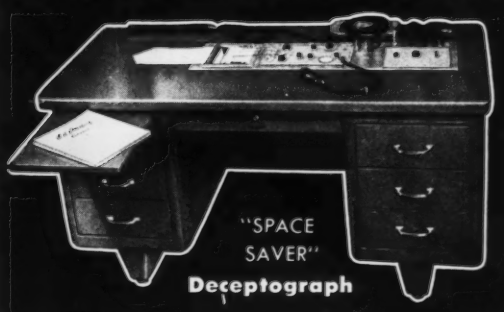

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These nine combinations were given to the different states in rotation in such a way that no two alike were given adjoining states. For the second year the states having color combinations for No. 1 were given No. 2 and those having No. 2 were given No. 3, and so on. In other words, each state was given the succeeding color combinations in rotation. When the ninth year is reached the cycle is repeated.

In order to check the accuracy of the system, maps were plotted for each of the nine years using one color combination in the scheme for each state. This can be done empirically and the results are entirely satisfactory. Such a plan for rotation is shown in Table II.

ADVANTAGES AND USE OF A SYSTEM

A method for systematic use of license plate combinations is presented. Motor vehicle departments of each state could adopt such a scheme of rotation of the most efficient color combinations described and could eliminate the "grab bag" method of selecting colors for automobile license plates. Nine number combinations would need be used in the United States. The size of plates, the shape, the numbering, grouping system, or any other variables might be standardized to help distinguish one state from another.

The same color scheme could be used by a state every nine years. This would not be contrary to regulations which make mandatory a change every five

years in some states. If other colors for one year were needed they could be chosen for local use. In this way there would be no confusion between local vehicles and those from other states. In other words, they would use colors not normally selected for the regular rotation system. No state would use similar plates on successive years.

If such a system could be adopted it would: (1) eliminate the use of the same or similar colors by adjoining states in one year, (2) it would avoid tedious negotiations and conserve the time of motor vehicle superintendents, (3) it would guarantee the use of the most efficient color combinations, (4) it would make for economy in license plate construction by making possible the placing of large orders for plates to be used by a state over a period of years.

The system could be used even if not adopted by all states. For example, Delaware might have adopted here state colors of blue and gold which were reversed in alternate years. If she insisted upon keeping this combination it would be troublesome only on certain years, if at all, depending upon whether it was included in the original combinations used.

While it would be advisable for all states to cooperate the scheme could be adopted by any group or a minority of states. After it is once put into operation other states would eventually fall into line as confusions become troublesome. If there were no confusions the state might well keep any preferred colors as used by Delaware.

MAKING NUMBERS MORE LEGIBLE

In order to make license plates more legible there are certain principles in construction of numbers which may be set up for reference. We shall discuss this set of principles for improving license plate legibility. They are set down as originally noted without any order of preference as given in the previous table listed in order.

1. Cut off the side of the sharp corner of 4 when used.

2. Make 1 with a slight base but practically no top. Curve stem backward.

3. Make 7 with a slight base but a heavy top. Curve stem forward.

4. Make 9 straight and not curled. It should be more like a longhand 9 is usually made.

5. Use simple letters mixed with numbers only for coding and spacing them apart from numerals. Letters not easily confused with numbers should be used. X, M, Y, etc. are desirable letters to use. B, S and I not desirable.

6. Avoid printing the state or year vertically between groups in small numbers. They are often mistaken for 1's.

7. Make 6 and 9 the same, but one the reverse of the other. Both should be more like a script 9 in shape, but reversed.

8. Use a narrower stroke for numerals and letters. For the most part broad stroke numerals do not show up well on a license plate. This is particularly true for slender digits of more than one member such as 8 or 4.

9. Space numerals or other characters used as generously as possible.

10. Keep the plate clear of unnecessary writing. Various emblems and signs have been used. They are not good and reduce efficiency of most plates.

11. Use letters and numerals of the same size. It is best to space the letter if one of a different size is used.

12. Keep 5 open at the bottom and make the top heavier.

13. Keep numerals open. An example is that of a 3.

14. Make the base of 2 heavy. In this way it will not be confused with a 6 or an 8. Make lower part of 8 larger.

15. Make 0's more nearly round. Long 0's fuse into 1's at a distance, particularly if the stroke is heavy. Make 8 more like a script 8. In general, draw the middle in and allow one end to project slightly higher.

16. Set groups as far apart as possible. Crowding reduces legibility.

17. In manufacturing, press down the sides of plate instead of making a raised beeding. A flatter edge tends to allow for better illumination of the number.

18. Make letters uniform in size if possible. Irregularities tend to lower efficiency.

19. Make top of 8 different from 9 by the method described. Also let the lower part of 9 be straight and not curled.

The use of these principles would greatly increase the legibility of license plate numbers regardless of colors used. ★★★

LAW ENFORCEMENT CAREER PROMOTION TO REACH HIGH SCHOOL SENIORS

Included among projects receiving the unanimous approval of the Executive Committee of the California Peace Officers' Association are the production of a color motion picture and the printing of 10,000 brochures designed to influence high school and junior college students to enter the field of law enforcement. Six copies of the film, costing $5,000.00 are being produced. They are expected to be available about April 1 and will be loaned without cost to law enforcement agencies desiring to present them before high school or junior college students.

Proposals for the projects were presented to the Executive Committee by Chairman William E. South of the Training and Education Committee and by Captain John A. Lindquist, Berkeley Police Department, Chairman of a "Careers in Law Enforcement" subcommittee. The script for the film, entitled CAREERS IN LAW ENFORCEMENT, was written by Officer John Pedersen of the same Department.

What Happens Afterward?

NANCY, a 21-year-old office receptionist, had been taking advantage of night-time store hours to do some Christmas shopping. A dainty yellow coat and bonnet for her sister's baby, some perfume and gloves for her mother, a nightgown and slip and a few stocking gifts had taken $40 of the $100 she had drawn from the bank on her lunch hour.

It was about 9 p.m. when she got off the rapid transit and started up the steps to the street level. The sound of her flats echoing through the stairwell, made her realize she was the only passenger in sight.

There had been so much publicity about purse-snatchings and attacks, in this mid-western city, that Nancy suddenly felt uneasy about walking the dark half-dozen blocks to her parent's home. She remembered that a friend of her high school days worked in a nearby gas station, and decided to stop there and ask him for a ride. But when she arrived, the station lights were dimmed and the attendants had all gone.

The night air had a softness about it in spite of the snow covered ground, and Nancy decided it was really a good night to walk after all. So, clasping the packages with both hands, and letting her purse swing on her arm, she dismissed all apprehension and started out.

This was an old section of the city with virtually no street lighting. The homes were small with neat yards and large trees whose branches hanging down over the small street bulbs, made weird patterns in pools of light.

On this December night, curtains were drawn against the cold and in the interest of better televiewing, and Nancy had the feeling of being the only one awake in a sleeping world.

All except a man who apparently was having trouble with his car.

She could see him as she approached, bending under the upraised hood.

A family game that had come about when her father was a car salesman, was automatic with her and she mentally ticked off the statistics: "A Ford—maybe '54—light colored, beige or gray, hard to tell in this light—two-door sedan."

Unsuspecting, she passed him, and probably two car lengths away, was suddenly aware of a whisper of sound behind her and then a hand over her mouth.

She twisted her head free and screamed, then the hand was in her mouth, down her throat, the nails cutting cruelly into the soft flesh.

Nancy weighed only about a hundred and fifteen pounds and the man, a six footer, had no trouble dragging her backward to his car and pushing her across the front seat, head under the steering wheel. She instinctively clung to her packages until they reached the car and then they fell on the tree lawn. Her purse was still on her arm.

* * *

What does a girl think about in a situation like this? Does panic take over?

Nancy was a practical sort. She'd had to be. When she was little, her parents left her with relatives in a small town and went to the city to work and build up enough funds to establish a home. It was several years before they were together again. Her mother was an extremely shy woman, who was uncomfortable with strangers, so each step Nancy made into life, she made alone. Whether it was registering in a new school, or getting acquainted with the neighbors, she was on her own.

Now this self-reliance came to her rescue.

When first thrust into the car, she struggled, but each time, the lacerations in her throat were deeper.

Nancy was wearing a long double-breasted coat that buttoned snugly from the neck down below her waist and this was a great protection, for the man couldn't tear the heavy material, nor release the buttons and still keep his hand in her mouth.

"You know what I want," he said.

Nancy nodded.

"If you promise not to scream I'll let you up." He took his hand cautiously off her bruised and swollen mouth.

"I won't scream," she said quietly.

"I'm going to take you some place and I'll bring you back in twenty minutes. If you don't try to get away, I won't hurt you."

"How can I get away?" Nancy asked, "but my packages will leave a trail."

He shoved her forward, opened the car door and reaching out, swooped them up and into the back seat.

"You can't drive with the hood up!"

The man sat there a minute, looking at her and then at the hood.

"Don't try to get away," he warned, getting out the driver's side and closing the door.

At this point, Nancy's practical turn of mind nearly lost the advantage.

She still had $60 in her purse, now lying on the driver's side of the front seat, and money had always been very important to her since she had so little. So she reached across for it, and in a flash the man was back in the car, grabbing at her throat.

"I only wanted my handkerchief," she gasped. So he let her go and cautiously got out of the car again.

Address: Street and Highway Safety Lighting Bureau, 1400 Terminal Tower, Cleveland 13, Ohio.

The purse snatcher strikes in the shadows. These crimes of impulse flourish in darkness for the criminal knows he cannot be identified.

"I knew I would only have one chance," she said in telling about it later, "I had noticed a light in a window across the street, and decided to run around in back of the car and head for that house. I felt sure if he caught me, he'd kill me, but I had to try. My legs were trembling and my throat ached so, I couldn't make a sound, but the minute he started toward the front of the car, I grabbed my purse, opened the car door and ran. My heart was pounding and I couldn't tell whether I heard footsteps in back of me or not. I beat on the front door with all my strength and finally the lady in the next house came out to see what was going on. There was no one at home in the place with the light in the window! I guess I took the man by surprise and he was scared, because he jumped in his car and took off."

When Nancy's parents were called, they came and drove her to the nearest hospital where the police were notified.

"All I wanted was to wash out my throat and mouth," she recalled, "but they kept questioning me. Finally they let me go home and a member of my family who is a doctor, treated me every day. My soft palate was torn and there were cuts on the inside of my mouth and throat.

"One of the things I remembered, and told the police, was that when I was walking toward home that dark night, my earrings began to hurt and I took them off and was holding them in one hand when the man grabbed me. They found one of them near where the car had been parked and I identified it. Then they found a car that answered the description I'd given, and in the glove compartment was the other earring. It must have fallen on the floor and he threw it in there. This was what really convicted him, but he never admitted he was guilty.

"The police located the owner of the car and I picked him out of a line-up.

"I really wanted to prosecute, because I thought the next girl might not get away, or he might kill someone. I was told this man had attempted the same kind of attack on another woman, by pretending to be looking in the luggage compartment of his car. She refused to prosecute, so I was the next victim.

"In writing about the trial, one of the papers used my name, and from then on, I began getting obscene telephone calls. I am sure it was always the same person—probably a friend or relative of the defendant.

"The voice would start out 'Nancy, how about getting in the car with me . . .' and he would say terrible things. I tried hanging up, but he'd just call back. Sometimes I would hold the telephone away so I couldn't hear him and I'd wait for him to get through and go away. I even tried listening and then reasoning with him, but of course that didn't do any good at all. Naturally I reported it to the police and they said for me to make a date with him and they would protect me. But I couldn't go through with that. It was too much to expect.

"When I first went into court to prefer charges, the Judge called both of us up in front of the bench. I was very upset, seeing him and thinking back to that terrible night. Then all of a sudden I got this hysterical feeling I might laugh out loud! There we were, only a few inches apart, standing in front of the Judge almost like we were getting married or something! I guess if that silly thought hadn't come to me, I would have burst into tears I was so scared.

"After the man was sentenced (he got from one to fifteen years), I still got those terrible telephone calls. My parents moved, and we had our telephone number changed but the calls continued to come for months.

"I had never been nervous in my life," Nancy went on, "but after that night I developed what the doctor called a 'nervous stomach.' I couldn't eat, and he began a series of tests and costly treatments to correct the trouble. Since I wasn't sick enough to hospitalize, my insurance didn't help, and I worried about the mounting bills. It cost me $150.

"For the first time in my life I was afraid to stay in the house alone. I would lock all the windows and doors when my parents went out, but after about an hour of jumping everytime I heard a sound, I'd have to telephone someone to come and stay with me.

"Finally, I left my parents' home and took an apartment on a well-lighted main thoroughfare in a different neighborhood. I feel safer on the top floor in a place where no one can get in unless I take the chain off the door. And I feel safer coming home alone at night in a section where the street lights make you feel you have a policeman standing by. I can see everything

clearly as I walk to my apartment door, and no attacker could drag me to a car without being seen. Knowing this, helps me build up a feeling of confidence again.

"I do worry about the man getting out of jail and having it in for me. Even though he insisted he was not the man, I was with him in the car for about 20 minutes and I'll never forget his face.

"When I'm out alone at night, I can't get over the feeling of someone sneaking up behind my back in the darkness. The other night I was shopping and walked down a side street. Suddenly I didn't see anyone else around and I thought I heard quiet footsteps. I whirled, and no one was there. I felt like a fool.

"Some of my girl friends asked me if this attack made me feel repulsed by men. Maybe I'd feel differently if I hadn't gotten away, but I don't connect it with the men I know. I've always had lots of dates and still do. Once I was engaged, but we broke up. Right now, I'm fairly serious about a man who works in Bermuda. I told him what happened to me and he said nothing like that would happen there. They just don't have crimes of that kind—in fact he says they have almost no crime at all—maybe because it would be hard to get away afterward, being on an island.

"Sometimes I can't decide which I like best—the idea of living in a place where I won't have to be afraid, or him!"

* * *

There were several factors that led to Nancy's escape besides her ability to think beyond the terror.

The way she was dressed, in a heavy winter garment that couldn't be easily ripped open. The happy circumstance that she was wearing snug-fitting flats, enabling her to run easily when she got the chance. Usually she wore slim high heels, but that day she had been to a chiropodist, and had worn the more comfortable shoes. The fact that she did not struggle senselessly, and did not enrage the man, gave him a feeling of security that worked to her advantage.

Nancy got away, but there are other women who through no carelessness or fault of their own, have no chance of escape and become victims of this wanton violence.

The economic independence of today's career woman gives her freedom without protection. To keep her safe, we must light the ways she walks alone.

Take the case of a young woman we will call Marie—since of course this isn't her name.

It has become the fad for girls who are not engaged after graduating from college, to look for employment somewhere outside their own back yard. It seems to satisfy a desire to establish a home and assert their independence.

So, like many other of her unmarried friends, Marie wanted to work away from her eastern hometown, and she got a job in a large western city.

A scream, a struggle, and then silence in the darkness. Another successful attack because the criminal knows he cannot be seen.

Marie had no difficulty finding satisfactory employment, since she had degrees in two fields of endeavor.

The oldest of a family of six, she had attended parochial schools in the elementary grades and a private Catholic girl's school for college preparatory work. Her education and cultural background showed in her appearance and manner. She was slender, of medium height, with brown hair and eyes to match, and a smile that won instant response. Although there was nothing of the glamour girl about her, she was attractive, and to use an old-fashioned term—a lady.

On the night when she was destined to become the victim of one of the most revolting crimes in the history of the community, she had been invited to attend a baseball game.

Her job kept her late this particular night, but it was a twinight double-header and her friends gave her a ticket and suggested she meet them when she was through work.

It was about 9:15 p.m. on a balmy September night as Marie walked happily along the lengthy approach to the huge stadium. She had never been here before, since she was still new to the city.

In the meantime, three derelicts of society, part of the scum that gathers around the edge of every metropolitan center, had joined forces. They had drifted into town from different localities and were drawn together by their common limitations. None of them had jobs, nor the desire to work. All of them had police records.

A lone drunk, passing the trio, was quickly slugged and rolled. In his wallet they found three tickets for the ballgame, and after having several drinks in a nearby bar, they decided to go.

The pace of the game was too slow to hold their interest, so after awhile they left in search of more excitement.

There was no one else in sight except Marie, as they crossed the big ramp walking away from the ball park. It was dark now, and the concentrated blaze of light in the stadium left the approach in almost total darkness. Marie, completely unaware of their existence, and impending danger, was thinking ahead to her friends and an evening of fun.

Without warning they grabbed her.

One put a hand over her mouth and pinned her arms savagely behind her back.

"I got the purse, let's go," one of them whispered.

"No, we'll take the girl," said the fellow holding her.

Under the excavation for the ramp, with the concealing protection of total darkness, they ripped off her turquoise sweater, tore her brown skirt down the side and brutally pulled off her undergarments. After they had attacked her, they took her rings, bracelets and purse and left.

When she could get her bruised and beaten body off the ground, Marie grubbed around in the dirt trying to find her clothing. She found only a slip, put it on and stumbled up to the ramp. There were no police in sight—no pedestrians—no one. Just the sounds of the cheering fans. She stumbled along all the way to the stadium entrance where she finally attracted the attention of a ticket-taker. He put his uniform coat around her and ran to get a detective who was enjoying some popcorn and watching the game.

The detective reported the attack on his police radio and the word went out to bring in all suspicious persons in the area. As he drove Marie to the hospital, he got a description of her belongings. More police were on hand at the receiving entrance—policewomen, reporters, all crowded into the room. There was no treatment given, no privacy, no opportunity to think quietly until the law and the press had been satisfied.

The detective who had been the first to talk with Marie, went immediately from the hospital to the scene of the attack and with the help of a flashlight, located the rest of her clothing. This he took into headquarters.

In the meantime, the round-up of loiterers and known offenders, brought a steady stream of possible suspects into the station. Anyone who remotely answered the description of the wanted men, was taken into custody. After leaving Marie's clothing, the detective stopped to look at the personal possessions of the men who were being booked. Among them was jewelry that might belong to the girl. When she identified it, there was a triumphant rush back to headquarters.

The men who had been caught with the rings and bracelets were soon trapped in a web of lies and they implicated the third man who had not been apprehended. In his room, detectives found a shirt, the lower part of which was stained with blood. They were certain the owner was the man they sought.

In the hospital, Marie had only one desire and that was for complete anonymity.

A physician and his wife, whom she knew both professionally and socially, were the only ones she called. Her roommate was out of the city; her casual friends at the ballpark just assumed she had changed her mind about coming to the game; her boss was notified that she had been taken ill and was in the hospital.

Above all, Marie was determined that her parents and family were never to know.

While recuperating in the hospital, she suddenly remembered a date she had with a young man who had taken her out occasionally. He was active in a church youth group of which she was a member. So she called him to say she was ill and he came to see her.

"I think he knew," she said, "he was so kind to me."

After eight days, when she was well enough to leave the hospital, she was asked to view some men in a line-up, and she pointed out the owner of the blood-stained shirt.

This was only the beginning of the nightmare for the sensitive girl.

Police and reporters used every persuasion to get her to prosecute. To Marie it seemed like a kind of legal blackmail.

"It was all very well," she said, "for the police and reporters to say I owed it to others to put those men behind bars. I felt I didn't owe anybody anything. I just didn't want to talk about it to anyone for any reason.

"But I hadn't the strength to fight them and one day, there I was in court."

Although Marie refused to credit this, police and press did try to protect her from being identified as the victim of the sensational attack. She was kept away from the curious gaze of other witnesses and treated as gently as possible by the attorneys.

A woman juror said later that Marie never looked up during her testimony which was almost inaudible. The man seemed not to glance in her direction, nor to really take in what was happening. His own background of sordid home conditions, no education, no chance at all in life, although thoroughly explored by his court-appointed attorney, could not be allowed to excuse him from the heaviest penalty. He had behaved like a mad dog and must be treated like one. It was just a matter of getting it over.

After Marie left the court room the detective who had found her clothing identified each garment for the six men and six women who composed the jury. The town brown skirt, the long sleeved turquoise sweater, the dress shields on an elastic band, a white cotton brassiere, two pair of cotton panties and an elastic girdle, with one stocking still attached to a supporter.

It did not take the jury long to find the man guilty

on four counts that automatically made his sentence add up to 95 years.

So it was finally over, but not over. Not ever really over for Marie.

The scars on her legs healed with very little trace. A scar above one eyebrow and across her nose would never quite disappear. She had a stock story about being in an automobile accident to explain them.

And now Marie began to run.

She never gave herself a moment's repose. In the winter she planned week-ends of skiing and tobogganing. She attended discussion groups under the auspices of her church. She made dresses for her sister's children and made many of her own clothes too. She organized automobile trips—went on hikes to explore the countryside—anything to keep up an incessant activity.

Marie was successfully hiding her tragedy from nearly everyone but herself.

When this writer, learning of her identity through public records, asked what she thought could be done to prevent such crime, she seemed to put on a protective shell. If the questions came too close to the deep hurt, she was wary and perfectly silent. Her eyes reflected no light and cloaked her spirit. A slight twitch in her face betrayed an inner turmoil. It was evident that no healing had really taken place.

What about the men in her life now? Well she didn't put herself in a position to have single dates anymore. Everything was in groups. Intimate, serious emotions she avoided. Marie is skimming along on the surface of life.

A prominent psychiatrist referred to Marie's psychosis as being "in flight." A desire to run from anxiety—to refuse to admit to herself or anyone else that the attack had taken place.

"She has evidently suffered severe ego damage," he said, "you never know how feelings of guilt drive a person like Marie into this running away from reality. Brought up in a better-than-average home, her mother, like most mothers of this type, probably preached about being careful and not going out alone at night. Perhaps the mother never approved of Marie's working away from home. When this attack occurred, Marie's inner thinking told her she had disobeyed mother and this was the result.

"Or it may be that underneath her modest appearance is a frustrated desire to be admired and loved. Perhaps the inner thinking accuses her of this as a hidden wickedness and so proclaims the rape to be her own fault.

"Psychiatric treatment in her case would help her see that she was not to blame and enable her to face up to reality."

This same kind of horrifying experience in varying degrees is happening to women in many of our metropolitan cities, for since the war, night street attacks on women have increased enormously.

What can be done to prevent these crimes?

The most efficient and economical way to protect women from street attacks is to install adequate street lighting.

Police know that where lighting moves in, crime moves out.

Here is what some top law enforcement officers have to say on the subject:

Seattle, Washington, Police Chief H. J. Lawrence: "There are too many areas of darkness in cities, giving opportunity for these crimes."

Chicago, Illinois, Commissioner O'Connor: "Criminals are afraid to attack in a lighted situation, you rarely have attacks on women without the cover of darkness."

Cleveland, Ohio, Police Chief Frank W. Story: "After many years of experience as a police officer, I have come to the inescapable conclusion that inadequate street lighting provides a fertile field for hoodlums and other dissolute and vicious persons to ply their nefarious practices on innocent law-abiding citizens. Light always works on the side of law."

New York City, Captain Frank A. Rice: "For the last three years a program of improving street lighting has been going on in this city. It is expected that this will assist police in preventing street assaults and other crimes."

The protection of women who walk alone, is the responsibility of each community and demands the thoughtful attention of every citizen.

Insuring their safety should be of enough concern to stimulate constructive action.

Don't wait for disaster.

Look at your street lighting. If shadows and shrubbery predominate—if you can't see or be seen for 100 yards in any direction, you need help.

A hint might be taken from the manner in which the Federation of Women's Clubs in Cleveland, Ohio, handled a bad lighting situation. They sent a committee to the Mayor's office and told him they were not leaving until he told them exactly what he proposed to do about making Cleveland streets safe with adequate lighting. The stimulus for this dramatic action came from the attack-death of a young girl, and the realization that darkness had been the deciding factor.

Leadership in ending terror on the streets can be provided by PTA groups, Women's Clubs, Church Groups, Safety Councils and similar organizations. Resolutions passed by them—block by block petitions—any such indication of civic demand, presented to the Mayor, City Manager or City Council will give these officials the authority to install proper street lighting.

Police say we need to light up our streets so we can see what we have to fight.

With such a program we can effectively wipe out street attacks. ★★★

KNOW YOUR LAW

A Special Section of the Journal Devoted to Legal Questions of Direct Concern to Every Police Officer

By Francis C. Sullivan, Professor of Law, Loyola University

Dying Declarations

EDITOR'S NOTE: *Under a substantial grant from the Ford Foundation, Professor Sullivan left October 1 on a tour of England, Austria, Turkey, Japan and Brazil for the observation and study of criminal procedure in those countries. He will maintain his contact with the* JOURNAL *and in addition, on his return, readers may look forward to an account of his impressions abroad.*

FROM the very inception of the Hearsay Rule it became necessary to provide a means of allowing the introduction of evidence which was both necessary in a given case and also deemed to be reasonably reliable, yet within the terms of the Hearsay Rule and hence normally inadmissible. The method chosen, perhaps unfortunately, was to preserve the Hearsay Rule in its original form, and to create various exceptions to the Rule which would allow the use of hearsay evidence so long as it conformed to certain specified requirements. These exceptions were carved out by the courts as the need arose over a long period of time and as the result of a large number of cases presented for decision. This naturally produced differences in the scope and application of the various exceptions from court to court, depending to a great extent upon the policy considerations applicable to the particular cases in which the problem arose. These variations are as pronounced today as ever, and it is possible here to deal only with the exceptions as generally recognized and applied without reference to individual variations that exist from state to state.

Among the most important of the exceptions to the Hearsay Rule, and perhaps of greatest interest to law enforcement officers is the Dying Declaration exception. Our situation is this: a victim of a homicide immediately before his death tells a third person that the act was performed by D. The problem is squarely presented when the prosecution attempts to have the third person testify at D's trial for the homicide as to the victim's statement.

It is not at all unusual for this identification to be essential to the prosecution's case against D, and where this is so the court is faced with the problem of admitting hearsay evidence or perhaps allowing a criminal to go free. In allowing the decedent's statement to be placed in evidence through the testimony of the third person, the courts have emphasized the reliability of this type of evidence, the fact that one about to die would be expected to tell the truth concerning the event causing his death. The basis for the exception then is the awareness of the need for this type of evidence and the belief in the truth of such statements.

The courts have not, however, been unmindful of the dangers inherent in the use of dying declarations and have set up certain requirements which must be met before the evidence may be used. The first of these requirements is that the declaration may be used only in a criminal prosecution for the homicide of the person making the statement. Some relaxation of this requirement has developed in the last few years in some states so that such a declaration may be used in a civil proceeding relating to the death of the declarant, but this has not been looked upon with much favor in most states. Note that the requirement is that the prosecution be one for homicide—murder, manslaughter, etc.—thus if D was being prosecuted for robbery, a dying declaration by X in which he identified D as the robber would not be admissible. Likewise, if X makes a dying declaration in which he relates that five years ago he saw D kill Z, this statement may not be used in a prosecution of D for the murder of Z.

The next general requirement is that the statement relate to the circumstances surrounding the event causing the declarant's death. This requirement is similar to the one above and is designed to limit the scope of the exception to the facts of the declarant's death. Where the declaration does not specifically identify the assailant but merely relates a secondary fact of circumstantial value, this requirement very often leads to a dispute which can be answered only by the court.

The declaration to be admissible must contain facts within the personal knowledge of the declarant. This operates to exclude opinions, guesses, and matter which has been told to the declarant by other persons. This naturally follows when we consider that the declaration is to be used in lieu of the oral testimony of the person making the statement.

In order that a court may reason that the declaration is most probably true because of the unique conditions under which it was made, the declaration must have

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been made at a time when the person making the declaration was in danger of imminent death and knew this to be the fact. It is the fact of the person's knowledge of his impending death that leads us to believe that his statements at this time will be truthful, and this element is perhaps the most important for the police officer to remember. When taking a dying declaration the person should always be advised of the seriousness of his condition—by a doctor if at all possible—and he should be asked to acknowledge that he has heard and understood this advice. This will be of great help to the prosecution in establishing the knowledge requirement and will add to the effectiveness of the declaration.

The final requirement, and an obvious one, is that the person dies as a result of the injuries resulting in the dying declaration. The statement may not be used if the person recovers, for there is then no reason to allow the use of this hearsay evidence.

Dying declarations are very effective with juries because of the very dramatic nature of the evidence. There is nothing conclusive about a dying declaration, and the defense may attack this statement as they would any other. Experience teaches, however, that a proper dying declaration is difficult to discount. The declaration may be made to any person and may be either oral or in writing, the condition of the declarant normally controlling both of these factors. If at all possible, it is highly desirable that the statement be made in the presence of several persons, including disinterested witnesses such as a doctor and nurses. The contents of a dying declaration should be reduced to writing as soon as possible to assure accuracy and to avoid the impression on cross-examination that the declaration is more the product of the police than of the deceased person. The dying declaration if properly used makes available the seemingly impossible—the testimony of a dead man. ★★★

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$1,845,000 KELLOGG FOUNDATION GRANT SPURS LAW ENFORCEMENT TRAINING IN OKLAHOMA

A grant totaling $1,845,000 from the W. K. Kellogg Foundation, Battle Creek, Michigan, has assured the construction of one of the nation's major centers for continuing adult education on the main campus of the University of Oklahoma. Dr. George L. Cross, President of the University, announced the grant recently in an address to the combined civic clubs in Norman. Total estimated cost of constructing and equipping the Center is $2,900,000, of which the grant will provide $1,700,000. The remaining $245,000 of the grant is to be used to subsidize operation and experimental programs during the first years after the Center is completed.

The new facilities will make possible sharply expanded operations in the various areas of adult education, including plans for an accelerated training program for law enforcement personnel.

The Fifth Annual Southwestern Arson Investigation Institute was held at the University of Oklahoma November 17-21, 1959. The following Institutes and Seminars are scheduled for the first half of 1960:—*First Annual Southwestern Polygraph Examiner's Clinic* February 15-17; *Third Annual Oklahoma Institute on Juvenile Problems* February 18-20; *Sixth Annual Southwestern Homicide Investigation Seminar May* 2-7; and the *Annual Seminar of the International Association of Auto Theft Investigators* (merged with the Third Annual Southwestern Auto Theft Seminar) July 17-21.

Dates are now being set for the *First Annual Southwestern Police Administrators Workshop, Medico-Legal Short Course, Highway Patrol Recruit School,* a *Series of Short Courses in Supervision for Departments of Public Safety* and *Short Courses for Municipal Attorneys.* Held in alternate years are the *School for County Sheriffs, Jail Security School* and *School for County Attorneys.* In the planning stage are a *Series in Traffic Safety,* a *Series in the Detection of Forgery* and a *Series for Juvenile Officers.*

Additional information may be obtained by writing to James Robinson, consultant, Law Enforcement Programs, University of Oklahoma, Norman, Oklahoma.

SPECIAL AGENTS SECTION

Edited by John Richelieu Davis

Legal Aspects of Industrial Security

PART I

By John Richelieu Davis

THE two most perplexing problems, today, in the minds of industrial management are the control of losses incurred by dishonest employees, and, the legal weapons necessary to combat this problem.

Corporations are constantly fearing the threat of false arrest or detention suit. No doubt it is this fear that has restricted the activities and promotion of security procedures.

In most all instances where a firm does encounter a criminal problem concerning a dishonest employee, the corporation's counsel is consulted. In such instances, it has been my experience that corporation attorneys have either projected a legal opinion, which was subsequently proven erroneous, or, recommended a "hands off" policy.

This greatly exaggerated fear of law suits, and negative approach has created a situation in industry whereby dishonest employees are almost immune from prosecution. This attitude has proven to be extremely costly.

I do not imply that corporation attorneys are not capable in advising on criminal cases. Rather, their attitude probably arises from the fact that their chief concern is that of the many complex problems of corporation law.

Possessing a fundamental knowledge of the legal aspects in industrial security is just as important a tool to the security chief as the methods he must utilize in conducting an investigation. A progressive security manager has the responsibility of availing himself of the many sources there are in securing this knowledge.

Due to the variances in the State laws and the lack of space it is impossible to present a fixed set of rules to apply to every explicit situation which may be encountered. I can only discuss the general approach to the most common problems that are presented almost daily in the functions of a security department.

These suggestions may help you to avoid embarrassing situations that could be detrimental to the company policy or could subject you to civil actions.

In most all instances the dishonest employee presents a threat to file suit against the company. These idle threats are not to be seriously considered if you have conducted the investigation, etc. on a sure legal basis. Any individual may bring suit against another for a $2.00 fee. Winning a suit is another story.

As a fellow worker and a member of the great industrial team, we should be constantly mindful of the responsibility and trust we owe to the employees, without whom our company could not exist. We must never forget that our form of government is based on the principle of fairness, reason and impartiality. In the administration of law our primary duty is to insure that our fellow employees are not deprived of their statutory and constitutional rights.

AUTHORITY TO SEARCH

The constitution of the United States Government clearly provides that individuals shall be secure in their persons, houses, papers and effects against unreasonable search and seizure. When these constitutional rights are invaded, the courts will not permit the presentation of evidence gained in this manner.

A great majority of the firms today have utilized their guards to routinely request employees to open their parcels, purses and lunch boxes for the determination of stolen materials. This act, in itself, may be conducted illegally. A guard cannot request or directly ask an employee to submit to this procedure. To conduct this function in a safe, legal manner we may consider the *Waive and Consent to Search* law. An individual may waive, verbally or written, his rights for permission to search, providing that this waive was not obtained under duress or coercion. A guard should always ask permission of the employee to look through his lunch bucket or purse. If the employee should decline, then a search cannot be made. Often I have heard guards say to the declining employee: "If you don't, we will suspect you of theft or you may lose your job." Once this statement has been made and permission granted, the guard has committed an act of coercion in obtaining the permission.

An employee who declines to grant permission to look thru his personal belongings should be allowed to leave the premises without any further inconvenience. His action may then be reported to the Security Office for subsequent handling. Or if there is strong reason to believe that the employee undoubtedly has stolen

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merchandise on his person, the challenging guard should refer such an individual to the security supervisor who will subsequently gain a permission to search.

The waive and consent consideration is equally applied to the search of employees' automobiles and their homes as well. The mere fact that his automobile is on company property does not give the firm permission to search it.

Search may be conducted without permission only on the following two rules:

1. A legal arrest made prior to the search, or,
2. A search warrant issued from the local courts.

ENTRAPMENT

Dishonest employees concerned with stealing materials from a company will, in all probability, work in secrecy. Therefore it is necessary for the security officer to utilize tricks and "set ups" in apprehending them. These means are entirely proper where the law breaker is in the "execution of criminal designs of his own conception"; however, the security officer *shall not induce* the person to do an unlawful act. Upon such an inducement by the arresting officer or their agents, this is termed entrapment and will result in a defense to the prosecution. You may use "artifice and stratagem" and you may employ decoys to entrap the criminal. Just be certain that the criminal intent originated in the defendant's mind.

USE OF FORCE

In making an arrest, force to some degree is always used. However, the extent of this force is governed. There are two kinds of force:

1. Use of means intended or likely to cause death, or,
2. Means which is not intended to cause death or likely thereof.

A. Deadly Force — Serious Crimes

An officer making an arrest is permitted to use deadly force, provided that the arrest is for a felony which may cause death or serious bodily harm, or the breaking and entering of a dwelling place, provided the officer reasonably believes that the arrest could not be otherwise effected.

B. Deadly Force — Lesser Crimes (Misdemeanors)

Deadly force cannot be used for lesser crimes (misdemeanors), the only exception being that the officer reasonably believes that the subject may inflict serious bodily harm or be put in peril of death.

USE OF THE POLYGRAPH (Lie Detector)

It is often said that the Lie Detector is not a substitute for a good investigation. I cannot agree with this statement wholeheartedly. I specifically recall numerous instances where the polygraph was utilized in disqualifying prospective employees. Frequently employees have been screened who possess a Department of Defense security clearance, or have had their security clearance issued upon the action of a review board.

HERE AND THERE

Rare indeed, is the citizen who has not had a patrolman come to his aid in an emergency or personally witnessed the man in uniform performing a service for one of his neighbors. Neither rain nor snow stops the policeman on patrol from completing his appointed rounds—here in a deserted, frosty warehouse district in the early morning hours he performs the line functions of police service. Photo, courtesy the New York City Police Department.

Yet upon submitting to the polygraph examination, these same applicants showed specific reaction to participating in espionage and communistic activities and, through further interrogation, the reactions were verified, by admissions. In this instance I cannot agree that the background investigation was more productive than the polygraph examination. This apparatus has a very valuable place in the investigation of thefts, acts of collusion, etc. Many thousands of man-hours have been spared by its use. Also many wrongly suspected employees have been cleared and able to maintain their good reputation. Personally, I consider my examiner and his apparatus to be one of my most valuable assets.

Legally one cannot be forced to submit to a lie-detector test. It is important to operate the apparatus with the full cooperation of the individual. Courts have ruled that admission of polygraph tests can only be entered only upon the permission of the individual who was examined. Otherwise he would be, in effect, testifying against himself.

With the exception of the State of Massachusetts there are no laws concerning the administration of lie detector examinations to employees. Massachusetts did, recently, enact a law which forbids employers including a lie detector examination as a pre-requisite to employment.

Many security officers have experienced difficulty with Labor Unions who have advised their members to decline the taking of a lie detector examination concerning a dishonest act. In view of this I reproduced the following citation of the General Counsel of the National Labor Relations Board is printed herein, to clarify this problem. In essence, it states that firms may employ and request the employees to submit to a lie detector test, when its only motive is that of economic considerations which occurred by employee thefts. Refusal of the employee to submit to the test is valid cause for dismissal.

ADMINISTRATIVE DECISION OF THE GENERAL COUNSEL

Case No. F-816 *Made Public December 25, 1958*

A union filed an 8(a) (1), (3), and (5) charge alleging that a company had unlawfully required its employees to take a lie detector test as a condition of continued employment.

The company (a general merchandising concern) and union were parties to a collective bargaining agreement containing detailed grievance and arbitration provisions. During the term of the above contract, the company discovered a substantial unexplained shortage of its goods and materials. Thereafter, an employee was detected stealing, and upon questioning by the police he implicated all of the company's 9 other employees in the thefts. The company discharged him, and when the shortages continued it advised all employees that they would be required to take a lie detector test in connection with the shortages. Two employees who refused to take the test were discharged, and a grievance was filed by the union in their behalf. (The grievance was currently awaiting arbitration, as provided for in the bargaining contract.) The union then filed the charge, herein, contending that the company's failure to consult the union before putting the test into effect, and the subsequent discharges based on the employee's refusal to take the test, constituted unfair labor practices. There was no evidence whatever that the company's actions in these respects were motivated by other than economic considerations, or was there any showing of independent 8(a) (1) violations or of company hostility to the exercise by its employees of their Section 7 rights.

The General Counsel concluded that under the circumstances here disclosed, and absent any evidence of an unlawful motive on the part of the company, there was no basis for a finding that the company violated the Act either by failing to consult the union before requiring the lie detector test in connection with the continuing thefts of its property, or by discharging those employees who refused to take the test. Accordingly, further proceedings were deemed unwarranted.

It is of paramount importance that a proper paper be signed by an individual before he submits to a polygraph examination. It is important that the individual knows what he is signing.

I have reproduced here a copy of the form used by Leonarde Keeler, Inc. in obtaining an individual's permission to give them a polygraph examination.

The wording of this form is necessary in the state of Illinois to comply with the "Monitoring" law passed by the Illinois Legislation in 1957. To my knowledge, Illinois is the only state that has such a law.

LEONARDE KEELER, INC.
Chicago 11, Illinois

Date: ....., 1959

I, ..., do hereby request, voluntarily, without duress, coercion, threats, promises of reward or immunity, to be examined by the Keeler Polygraph (lie detector) detection of deception technique. I understand that operation of this device involves the use of electronic apparatus for the recordation of emotional and vocal responses. I have had the nature of this examination explained to me, and do hereby consent both to the placing of the necessary apparatus upon my person, and to the use of any electronic hearing or recording devices operated contemporaneously with this examination. I do hereby release and forever hold harmless JOHN DAVIS ASSOCIATES, their agents and employees from any liability flowing either from the operation of the devices or use of the results obtained therefrom. I further agree that the results of this examination may be made available to proper authorities.

.....
(Signature)

WITNESSED:

.....

.....

THE VALUE OF A CONFESSION

To be of any value, a confession must meet the same rigid standards as statements. By definition, a confession is "The voluntary admission or declaration made by a person who has committed a crime or misdemeanor to another of the agency or participation which he had in the crime, and which is generally admissible as evidence."

But it must be remembered that a confession standing alone is not sufficient to prove the "corpus delicti" (the body of the crime). To be valid, an admission or a declaration, as a confession, must in some way have been an acknowledgment of guilt and must have been so intended, and it must have been *voluntary*.

A confession obtained by a magistrate during a preliminary examination is not looked upon with favor since it exceeds the intended duties of a magistrate, being more inquisitional than judicial.

A confession obtained after long or uncomfortable confinement, or after prolonged close questioning where the witness is in a weak, broken down condition may not be held admissible.

To emphasize the importance of taking statements, an example follows which shows that a confession obtained improperly can result in a company actually not being able to successfully prosecute persons who, by their own admission, were thieves. This example clearly points out the difference between "judicial" and "extra-judicial" confessions and the establishment of a "corpus delicti." It is strongly recommended that a close study be given this case for the insight it will give into the inscrutable ways of justice. (Actual Case, State of Michigan)

ACTION OF SUPREME COURT OF STATE OF MICHIGAN

PEOPLE V. DOE

1. Criminal Law—Corpus Delicti—Evidence—Confessions. The corpus delicti cannot alone be established by the extra-judicial confession of an accused.
2. Same—Evidence—Larceny—Conspiracy—Probate Cause. Evidence at examination, aside from extra-judicial confessions, held insufficient to establish probable cause that either larceny or conspiracy to steal spark plugs had been committed or that defendants were connected therewith.

John Doe and Raymond Roe were convicted of receiving stolen property. *Reversed, and defendants discharged.*

JUDGE. Defendants were arrested and arraigned before a Justice of the Peace on a warrant charging them and others with the larceny of 100 cartons of spark plugs valued at $2,800.00 larceny from a factory without breaking in and with conspiracy to commit larceny. The production manager of the spark plug manufacturer testified that between January 1, 1933, and June 26, 1933, approximately 13,000,000 spark plugs were produced in his plant, and that an inventory disclosed the fact that 21,541 were missing. Over defendants' objection, the people then introduced testimony to show admissions on the part of defendants and the transcript of the unsigned statements made by them in answer to questions by detectives of the police force of the city of Plugtown. A motion to dismiss was denied and defendants were held for trial.

Upon arraignment in the Circuit Court on an information charging larceny, unlawful entry with intent to steal and conspiracy to steal, defendants pleaded not guilty. They were again arraigned about two months later upon an amended information containing similar charges, but to which was added a count charging them with receiving and concealing stolen property. They stood mute and were tried following a denial of their challenge to the array and a separate motion to quash the information. A jury found them guilty of receiving stolen property.

In a motion for new trial, the claimed errors, including the trial court's failure to grant the motion to quash the information, were argued and denied, to which exceptions were duly entered.

It appears to be well settled that *the corpus delicti cannot alone be established by the extra-judicial confession of an accused.* If the admissions, which were in the nature of confessions, be eliminated from the testimony taken by the examining magistrate, that which remains is not sufficient to establish probable cause that the crime of either larceny or conspiracy to steal has been committed by anyone. Aside from the confessions, there was not sufficient testimony in the examination to connect defendants with the offenses charged in the warrant. Mere shortage of 21,541 spark plugs out of 13,000,000 is not, of itself, sufficient evidence of theft. The motion to quash should have been granted.

It is unnecessary to consider the other questions raised by this appeal. The failure of the people to sustain their charge may be unfortunate, in view of the subsequent testimony at the trial, but it would be more unfortunate to upset established and well-understood rules of law.

Further proceedings, if any, must be upon a new complaint, but in light of the record now before us, the judgments of conviction must be reversed.

The judgments are reversed and the defendants discharged.

COMMENTS ON THIS SUPREME COURT DECISION BY THE COMPANY LEGAL DEPARTMENT

In accordance with your request, we have examined the case of People v. Doe. The Supreme Court in this case discharged the defendants, who were charged with larceny, unlawful entry with intent to steal, and conspiracy to steal 100 cartons of spark plugs from the DX Spark Plug Company. A jury found them guilty of receiving stolen property.

The Supreme Court, in deciding the case, held that the corpus delicti of the crime cannot alone be established by extra-judicial confession of the accused, and found that from the confessions there was not sufficient testimony in the examination to connect the defendants with the offenses charged in the warrant. The term "corpus delicti," as applied to a crime, means: "The body of a crime; material substance upon which a crime is committed, such as the corpse of a murdered man a magistrate or in court, that include not only expressed confessions of a crime, but all those admissions of the accused from which guilt may be implied.

One of the first elements in a criminal case is to establish the corpus delicti of the crime. In People v. Doe, supra, the Supreme Court held that the mere testimony of a production manager showing a stock shortage was not sufficient to establish the corpus delicti of the crime, and, further, the extra-judicial confession of an accused cannot be used to establish the corpus delicti. In order to establish the corpus delicti in this case, it was necessary by additional evidence to show that the crime had actually been committed and not to rely on the extra-judicial confession for such showing. It is the duty of each plant police to definitely identify the defendant as the person who committed the crime. This identification can be established by a thorough and complete examination of all the facts and circumstances which associate the person with the alleged crime.

The DX Spark Plug Company in this case was unable to show on the day the offense was alleged to have occurred, that it manufactured a given number of spark plugs and placed the same in storage, or some other suitable place, and that on the next day or shortly thereafter, the defendants were observed by a police officer or were connected by some other means with the actual theft of the stolen spark plugs. It is very essential in each criminal case to definitely connect the defendants with the commission of the alleged crime and to be able to show the actual shortage in stock or property on a given day or date. ★★★

ACADEMY FOR SCIENTIFIC INTERROGATION · TRUTH THROUGH SCIENCE

To establish and maintain a standard of ethics and professional qualifications

POLYGRAPH and INTERROGATION

Edited by ROBERT D. STEEL

Sincerity of Purpose

By Lt. Robert S. Eichelberger

EDITOR'S NOTE: *Lieutenant Robert S. Eichelberger is a Polygraph Examiner with the Metropolitan Police Department, in Washington, D. C. A native of West Virginia, he graduated from High School in Cumberland, Maryland, and then moved to Washington, D. C., where he engaged in occupations which involved dealing with the citizen. He was appointed to the Metropolitan Police Department on November 1, 1939. In May, 1942, he took time out from the Police Department to enlist in the United States Coast Guard. Out of thirty-nine months in the military, twenty-seven were served in overseas duty. Aboard an A.P.A. in the Pacific, he engaged in five amphibious landings from Pelau through Lingayan Gulf. After being discharged as a Chief Petty Officer, he returned to the Police Department in Washington, D. C., and concentrated his efforts toward an assignment to detective work, and more particularly toward lie-detection. In March, 1951, his efforts were rewarded by being assigned to the Lie-Detection School at the Provost Marshal General's School, at Camp Gordon, Georgia. He became a member of the Academy for Scientific Interrogation, then the International Society for the Detection of Deception, and has attended all but one of the annual Seminars. The detection of deception continues to be an abiding passion with Lieutenant Eichelberger, who contends that a substantial part of police work involves the probem of establishing communication with the criminal mind, a job that can best be accomplished through the use of the polygraph. When he is not attempting communication with the wayward members of society, the Lieutenant can usually be found boating or fishing from his cottage retreat on the lower Potomac River.*

AT the 1956 Academy Seminar in Pullman, Washington, Dr. LeMoyne Snyder gave his excellent paper, "The Question of Ethics." That paper I have read many times, each time with a more profound respect for Doctor Snyder, the professional man. Today, with your permission, I would like to discuss the same general theme from the viewpoint of the ordinary policeman and technician. Call it Ethics, if you like, or, you may even define it as Sincerity of Purpose, or, the Professional Attitude. It is my conviction that we should all be reminded frequently of our Sincerity of Purpose.

I am reminded of the story of the American GI who received his discharge in England and applied for a job at one of those great manor houses. He was interviewed by the lady of the manor who studied him coldly through a pair of those eyeglasses on a stick.

"You will have to help out at some of my large formal dinners," she explained. "This means that you will wear knee pants. Let me see the calves of your legs, please?"

The Yank pulled up his britches and showed his legs and the Lady nodded her approval. Then she said, "We often go to Scotland during the grouse season, and you will be expected to wear kilts. Let me see your knees, please?" Again the Ex-GI obliged.

"Very good," said the Lady. "And now, please show me your testimonials."

As the American said later: "If I'd had a better education, I'd have gotten the job."

Now, that is a silly story, I know. But it has a special application here. Perhaps, if I had had more formal education, I might not have chosen police work as a career. But the fact remains, I did. And so, I am not ashamed to present my "Testimonials"—to borrow the language of the story. Twenty years of police work should qualify me to discuss the subject of police interrogation with some degree of professional competence.

I use the word "professional" deliberately. Too frequently, it is confused with the word "certification," as if the two were identical. For this reason, before getting into the body of my remarks, I would like to digress very briefly, long enough to define our terms. In this instance, I feel that it is not only desirable, it is essential.

Address: Lt. Robert S. Eichelberger, Polygraph Examiner, Detective Bureau, Metropolitan Police Department, Washington, D. C.

Many in the Academy are earnestly concerned with achieving professional recognition. I have no argument with those who sponsor this point of view. It reflects a healthy enthusiasm and a constructive spirit, without which no association of any kind can flourish. I can not claim that I am a professional man, in the popular sense of the word. I am a technician. But, the fact that I am a polygraph technician does not forbid me to approach my work with a profound sense of professional responsibility.

"Certification," as Webster defines the word, means to "officially endorse." I seriously question that certification is the only road to professional competence. I question whether it is even the best road. We are all engaged in a very specialized field of endeavor. The possession of a scroll is not an iron-clad guaranty that its possessor will bring a professional attitude in an area where judgment and experience count for so much.

I do not intend to labor this point. I mention it only because my discussion has to do with professional ethics. And, by this, I mean the professional attitude—or, if you prefer, "Sincerity of Purpose."

The Polygraph Specialist has a very special responsibility to society, to his colleague, and to himself. He must remind himself constantly that he is working within prescribed limits. He is simply the extension of a delicate piece of electronic apparatus. His function is to apply this device as expertly as he knows how, and to interpret its performance in terms of establishing an opinion of the guilt or the innocence of the subject.

Now, let's get down to cases.

In the course of running a polygraph examination, the examiner will frequently range far afield in his search for the key question which will unlock the buried secret. In the course of these explorations, he may uncover interesting, but irrelevant, information—information which, if revealed, could be seriously damaging to the subject, or to others, but which has no bearing on the police case at hand.

For instance, in the course of investigating a major theft, the probing might turn up several petty thefts of an inconsequential nature. Now, these venial sins are clinically interesting and shed additional light on the character of the subject, but they are essentially irrelevant. However, the unscrupulous examiner will be tempted to exploit these trivial findings, especially, if he is unable to establish a conclusive response on the serious charge. I regard this behavior as a clear breach of our professional ethics.

I can recall two disgraceful polygraph cases in recent years. In both cases, unethical examiners were unable to pin down responsibility for the major relevant issue and, rather than admit failure, they revealed minor larcenies to unauthorized persons, which resulted in the acute embarrassment of several people, and served absolutely no constructive purpose.

To give another example: let us suppose that I am

The author (right) and Detective Sergeant James K. McCarty discuss the Polygraph and Interrogation Section of the JOURNAL *with Chief Robert V. Murray (center) of the Metropolitan Police Department, Washington, D. C., currently second Vice-President of the International Association of Chiefs of Police.*

examining a subject, who may or may not be involved in a criminal offense. In tracing the alibi of the subject, I learn that he is being unfaithful to his wife.

Is it my responsibility to bring this information to the attention of his wife? Certainly not. I have no professional interest in the man's domestic affairs. I am, and properly should be, concerned only with him in relation to the crime which I am investigating. Any incidental peccadillos brought out by the examination should be erased, just as you would clean a blackboard. And, to maliciously reveal such information for reasons of self-opinionated indignation, displays an ignoble attitude that is inexcusable. It has happened. Delving into a man's inner secrets, as we are occasioned to do many times, requires an understanding of confidence that is not acquired in a short period of time.

This is the professional attitude and a part of our Sincerity of Purpose. It is a matter of consciously limiting your field of inquiry and sternly resisting the temptation to play God. Information developed by the examiner should never be divulged to persons other than those necessary, and then, only when it is logically unavoidable in order to establish evidence in the commission of the crime at hand.

The professional attitude also requires a strong sense of personal humility and an inflexible devotion to the truth. No examiner should be ashamed to report an inconclusive examination. When I hear men in the polygraph field claiming records as high as 90 to 97 per cent conclusiveness in their examinations, I question their professional integrity. From personal experience, I must admit by batting average hovers near 75 per cent. I am sure that in only about three cases out of four can I come out of that examination room and say with conviction that this man is guilty, or that this man is innocent.

This is not especially surprising when we consider the wide range of social types who fall into the police hands for examination. Many are mentally incompetent, or physically infirm. There are some who are completely devoid of any sense of right or wrong. They are social ciphers who simply cannot be expected to respond rationally to the polygraph tests. Considering all these diverse types who pass through the examining room, the police examiner, who can reach a conclusive judgment in 80 per cent of his cases, may congratulate himself on a phenomenal record of success.

Knowing this to be so, we must ask ourselves—"Why do some examiners claim such an extraordinary percentage of conclusive responses?" The answer is obvious. They are substituting professional pride for professional responsibility. They have allowed themselves to become slaves to the instrument, rather than its masters.

There are subtle pressures at work constantly in this field, undermining the professional posture of the examiner. Sometimes these pressures are not so subtle. They sometimes represent a naked display of authority, or economic force. It requires a considerable show of character and courage to resist these pressures.

For instance, there is the crime that arouses a community, or perhaps just that segment which is politically powerful. The pressure on the police and the courts to arrest and convict is almost mandatory. A likely suspect is turned over to the examiner with an intense request for a positive and conclusive report. You have all had it happen.

In these circumstances, with emotions running strong, it is not easy for the examiner to report inconclusively. This is an acid test of the professional attitude. Yet, if he has that quality, which I call Sincerity of Purpose, the examiner will report faithfully on his findings and find the moral courage to defend his position and his technical competence. Obviously, it helps considerably if the examiner is supported by a past sound record of proven performances.

Even more sinister is the pressure that is applied to the commercial polygraph expert. Here is an examiner who functions on a fee basis. His economic security is even more tightly controlled by these forces which are working constantly to undermine his sense of responsibility. He is employed for the specific purpose of reaching a conclusion. In a very definite sense, his conclusive report justifies his fee.

It isn't easy for this examiner to report back to his employer that he can not reach a conclusion. He can reasonably expect the employer to consider that the examination has failed, and failure can mean the loss of a client. The temptation to read into the charts more than they show is almost irresistible and it calls for a high degree of professional responsibility to resist this temptation.

The sincere examiner must serve only one master—the truth. And truth, as we all know, is often elusive. The so-called Lie Detector can not lie. But, for that matter, it can not tell the truth either. It is nothing more than a highly refined instrument for measuring physiological responses in the human subject. But the human element is fallible, and professional integrity demands that we recognize this fallibility.

We should be as impersonal as the instrument we are operating. We are interested only in establishing the fact of innocence or the fact of guilt, and our concern with one should be no greater than our concern with the other. Even when he can not produce a conclusive result either way, we should not abandon our impersonal detachment. When an examiner reports a distorted conclusion, he is committing malicious mischief to the subject, the investigation and finally, to himself. There is enough mischief going on in this world without polygraph examiners contributing to it.

Although I have found that there are more persons cleared of criminal offenses, more than two to one, our efforts are often rewarded, should I say, by a confession of guilt. This being so, I would like to discuss the matter of handling the criminal confession. This discussion will be brief because a thorough discussion would take up most of our Seminar.

A confession of guilt, properly surrounded by legal safeguards, is an invaluable document. On the other hand, an invalid confession is not only worthless but can, conceivably, create an additional burden for the prosecution. Therefore, I strongly contend that thoroughness should precede expediency in its completion.

A valid confession should be composed of five, instead of the present three, elements. Let us enumerate the present three:

First Element—In the opening statement the subject is advised of his rights under the law and he is required to state whether he is, of his own volition, making the statement, after having been so advised.

Second Element—The body of the confession in which he narrates his complete knowledge of the offense. This is supplemented frequently by the reenactment.

Third Element—The signatures of the defendant, the witnesses, and the obtainer of the document.

There are many other sub-elements, but these are the three principal ones. I strongly contend that the confession would be made more valid by adding two separate and distinct elements. After the subject has been apprised of his rights under the law, we should go beyond that to establish clearly the voluntary nature of the confession. The Motivation Element should follow. I repeat—the Motivation Element should contain the answer to the question, "Why are you telling us this?" After all, the man under arrest might say, "Because you beat me with a hose," or, he might say, "Because you will beat me with a hose if I don't con-

fess." Obviously, these replies would render the confession invalid as a legal document. The defendant might say "Because I think it is the sensible thing for me to do because of the evidence you have against me."

It is conceivable in my mind that the interrogator would be entirely within his rights if he explained to the subject that the evidence, which points he would enumerate and explain, would make an ultimate conviction probable. I believe he could explain, impartially, the due process of law to the subject. And, if the subject, of his own belief, logically reasoned that a confession would speed his trial, conviction, and sentence, and thereby would hasten the eventual day of his release, I believe that that confession might be accepted as a legal motivation for the statement. There are many pitfalls in this motivation, but a sincere interrogator could procure a valid confession if the other elements were in order. This is the true motivation for many confessions—it should be clearly explained in the confession so that there could be no question of duress or coercion raised in court to challenge and discredit the confession.

Of course, the best motivation for making a confession is remorse and repentance. It is also a common one. We are all familiar with the famous Mallory Case in the District of Columbia.

Mallory confessed willingly to the crime of rape for a simple reason—he repented his act. His repentance was a temporary thing, because he later committed a similar offense. His remorse wore off like a hang-over. But, at the time of the confession, he was properly sorry for what he had done, through the astute interrogation of an excellent interrogator. My closest colleague in police work, also a member of the A.S.I., and a man who has no need of any sermon on professional ethics, explained the act of rape to Mallory as it should have been explained. Detective Sergeant James T. McCarty convinced Andrew Mallory that he should repent his act, confess his guilt, and accept his punishment, and Mallory did just that. I strongly contend that, if the members of the United States Supreme Court could have been convinced, in black and white, that remorse and only remorse prompted Mallory's confession, there would have been no Mallory decision to compound our police problems. I am convinced of this.

It is easy to be a Monday morning quarterback, but, we failed to establish the motivation of repentance in Mallory's confession, with unhappy consequences. This is a direct reference to our Sincerity of Purpose. If we can, through our adherence to the professional attitude, convince those majestic Magistrates who sit in the Appellate Courts and in the Supreme Court, we will do much in promoting true justice.

My other suggested addition to the confession would be for the witnesses to add, besides their signatures, a statement concerning the actions of the investigators during the entire proceedings prior to, and during the confession. They should answer the specific question—"Are you biased toward this defendant?" They should remark in their statements regarding the treatment of the defendant, his physical and mental condition and any other relevant facts. These statements would help establish the validity of the confession. Yes, this is a lot of trouble, but some extra effort, in place of expediency, may bring a justified conviction which could have been an unjustified acquittal, as in the Mallory Case.

Now, you may ask, what has all this to do with ethics and our Sincerity of Purpose. Well, bearing in mind that we are discussing the professional attitude from the point of view of the working policeman, it has everything to do with ethics. I have attempted to outline a Code of Professional Conduct for the police

PAUL M. HOWARD Joins Police Faculty of Long Beach State College

Dr. A. C. Germann, Head, Department of Police Science and Administration, Long Beach State College, has announced the appointment of Paul M. Howard as Assistant Professor of Police Science.

Professor Howard served as a Special Agent with the Federal Bureau of Investigation for seven years. While with the F.B.I. Mr. Howard worked on some of the bureau's most important cases in the Criminal and Internal Security fields, receiving a total of seventeen F.B.I. commendations for outstanding accomplishments, including ten personal commendations from F.B.I. Director J. Edgar Hoover.

Mr. Howard attended Bakersfield High School and Junior College prior to World War II, and during the war served as a fighter pilot in the Army Air Force.

Professor Howard attended Santa Rosa Junior College and the University of San Francisco after the war, receiving the bachelor and master of arts degrees.

Married to Jeanette James, a graduate of U.S.C., and father of thirteen-year-old twins Michael and Michele, Mr. Howard has settled in the Los Altos section of Long Beach and intends to continue work on the doctoral degree.

The Long Beach State College Police Science Program, which Howard joins, has some 260 students enrolled, 190 of them majoring in Police Science and working toward the B.S. degree. Some 145 law enforcement officers from 37 different jurisdictions are enrolled in the program. *Police Supervision* and *Patrol Procedure* will be taught by Mr. Howard in the Fall semester.

interrogator, from the time the suspect is placed in his custody, until he is remanded to the arresting or confining officers, a confessed criminal, an exonerated suspect, or, perhaps, the subject of an inconclusive examination.

Promises and ethics certainly go hand in hand. For the police examiner to make a promise, which necessitates his trespassing into the official duties of the Prosecuting Attorney or the Judges, is certainly a breach of ethical conduct. If the prisoner indicates a willingness to cooperate, we may bring him before a Prosecuting Attorney who may offer whatever assurances to him that he properly may for his cooperation. In arranging the meeting, we are conducting ourselves entirely within the bounds of propriety and behaving in an ethical manner—beyond that we may not go. Also, we are morally bound to keep our promises to a prisoner. If we promise him that we will telephone a member of his family, then we must do it. We must keep our promises. It is a matter of simple honesty. It is more than that. Our entire penal system is based on the assumption that most criminals can be rehabilitated. I know it is not always an easy philosophy to accept, especially for the police officer whose daily experience cries out in protest, but, there it is. It is the cornerstone of our penal system and, whether we agree with it or not, we must adhere to the rules of decent society, even while we are dealing with its dregs. We, of the enforcement field, should not practice the doctrines of the social worker. We are more stern. Neither should we obliterate from our minds the human understandings in which, by our oaths of office, we are obliged to believe. It is difficult to divide sometimes, but, the ability to be able to divide, separates the good enforcement officer from the mediocre.

No man in custody should find in his treatment an excuse for greater bitterness or deeper antagonism toward the tenets of society.

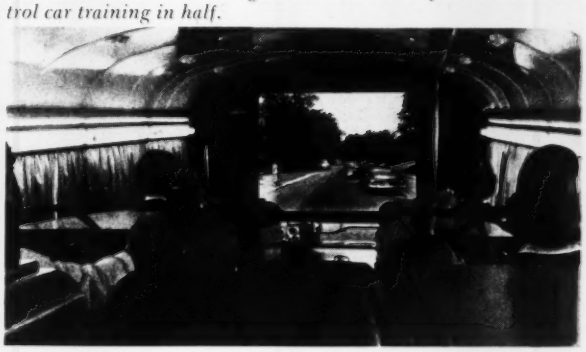
There is one additional very important point I would like to make because it relates to something which overshadows our entire field of work and makes a searching review of Sincerity of Purpose vital to all of us at this particular time in history. We are living in an age of great moral uncertainty. There are forces loose in this world which are using the police interrogator as an instrument of political aggression. The term "brainwashing" has come to represent an evil and unprincipled assault on the human mind. It is a very special form of brutality which has cast those guilty in the role of political Svengalis. By aspersions, which are untrue, the Communist infiltrationists have placed the polygraph examiners and police interrogators in a particularly difficult and uncomfortable position.

It is reasonable to believe that this condition will become worse before it becomes better. If the breakdown in moral responsibility persists and infects other nations than those in the Communist bloc, we are going to find that a rigid code of ethics will become more than just a desirable creed. The examiner will have to fight earnestly to establish and maintain such a code—or lose the confidence of the American people.

It is not enough to give lip service to the need for a Code of Professional Conduct. We MUST actively promote a Sincerity of Purpose among ourselves. In the great days of Rome, Caesar's wife had to be above suspicion. Today, when police power is being abused in the totalitarian states and accused in the United States, we must place ourselves above suspicion. ★★★

DRIVOTRAINER CLASSROOM TAKES TO WHEELS

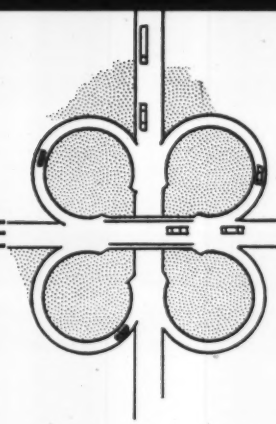
The Drivotrainer, which can train up to 25 students at a time, has enabled the smaller high schools to cut expensive dual-control car training in half.



Immediately upon parking alongside a school building, the mobile Drivotrainer classroom is ready for action, giving the school, in effect, an additional classroom.

A mobile classroom designed to bring behind-the-wheel driving instruction to rural and small-city high schools made its first public appearance at Michigan State University during the American Driver and Safety Education Association conference.

Developed for the Aetna Casualty and Surety Company, the classroom on wheels houses six of Aetna's drivotrainers in a standard type bus. Students drive the trainers according to traffic situations projected by film at the front of the bus while an automatic record of their errors is registered. About 80 per cent of the nation's 21,000 high schools have enrollments small enough to use this type of drivotrainer installation. The bus classroom can handle 360 students in a school year.



IN CASE YOU'RE TRAFFIC MINDED

Basic Factors of Safe Automobile Driving

By A. R. Lauer

EDITOR'S NOTE: *Dr. Lauer is Professor of Psychology and Director of the Driving Research Laboratory at Iowa State College, representative of a number of educational institutions where the resources of research are being brought into contact with the traffic problem. In the following series of two articles, he directs attention to basic components of driver behavior to be taken into account in the approach to traffic safety and a reduction in traffic accidents.*

NOTE: Footnote references will be found at the end of the second article which will appear in the next issue of POLICE.

IS THERE AN ACCIDENT-PRONE GROUP?

IT has been definitely shown (5) that a group of accident-prone drivers exist in spite of commonly mentioned quotations to the contrary. Those who have not studied the problem carefully are led into the error of believing that a different group of persons is involved in accidents each week, each month, or each year. This error arises from the fact that the period of time considered is too short. If all drivers are considered in a representative sampling over a period of ten years, the rate of accidents has been shown (11) to be about one for each 16 years of driving. If one-third of all drivers are considered, those actually involved in accidents over such an average period, the rate of accidents rises to one in each four years of driving. About 30 per cent of male drivers and 22 per cent of all drivers are known to have records of some type in the files (9). Women have better records. Having thus established the problem the search continues in quest of explanations.

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DOES SKILL AT THE WHEEL GUARANTEE SAFE DRIVING?

Experiments have shown (9) that the most skillful driver is not necessarily the safest driver. In other words the driver who handles his car best may take more chances and thus offset his superior skill. In addition to sheer physical dexterity, superior judgment, knowledge and proper attitudes are necessary. Training aids in developing the proper attitudes, tends to increase knowledge and responsibility, as well as the ability to discriminate between types of danger situations.

Accidents seem to result from an improper balance between a driver's skill and judgment and his own evaluation of the efficiency of his skill and judgment, evaluation being a function of judgment. Thus attitudes seem to be one of the most important aspects of safe driving. The safe driver compensates for his lack of skill by caution and good judgment. If his attitudes toward society are right he will be more likely to do this. The average person must have nearly ten years of experience to develop good judgment in driving (see Figure 1). This fact is of fundamental importance in developing techniques for accident prevention.

IMPORTANCE OF PERSONAL RESPONSIBILITY

Skill in manipulating the controls normally reaches a peak at about 18-23 years as shown in Figure 1. If a driver is properly trained to appreciate the dangers encountered while at the wheel, and responsibility for his conduct is saddled squarely on him, there is much less danger of his becoming accident-prone. If, however, he becomes fairly skillful at the wheel without developing attitudes of responsibility to society, danger lies ahead. A small percentage of male drivers fail to do this and the records of the group are grossly affected. The more obvious defects which a driver may possess will often create attitudes of responsibility, particularly in light of our present philosophy of driving, and thus lower one's chances of having an accident by encouraging compensations. It is a generally accepted fact that drivers should be in good physical and mental condition while driving a car. This results in various types of pressure being brought to bear on the person with such defects. He tries hard to stay out of accidents and usually succeeds. The technique is also used by commercial fleet operators who have consistently lowered their fatal accident rates at the same time private vehicles have suffered greatly increased rates. More recently it has been used in driver improvement programs.

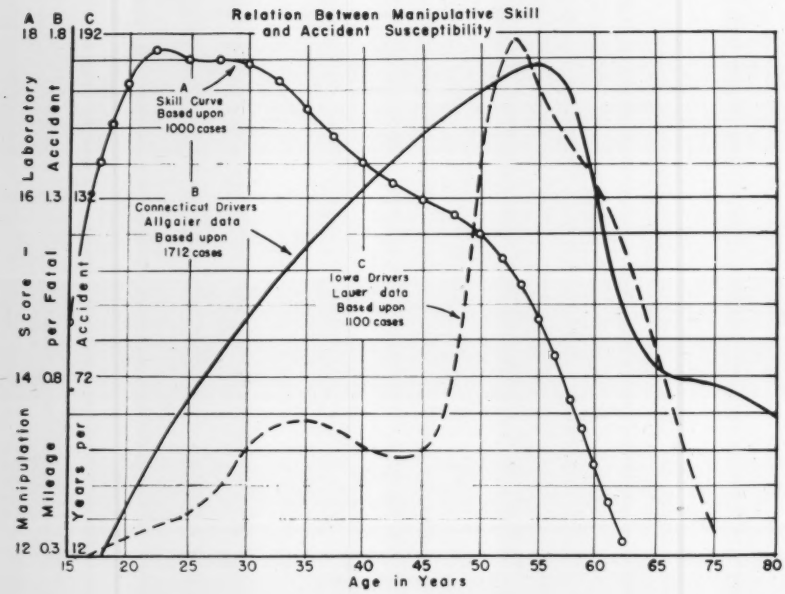
Relation Between Manipulative Skill and Accident Susceptibility
A B C
18 1.8 192
16 1.3 132
14 0.8 72
12 0.3 12
Manipulation Score — Laboratory Mileage per Fatal Accident
Years per Accident
A
Skill Curve Based upon 1000 cases
B
Connecticut Drivers Allgaier data Based upon 1712 cases
C
Iowa Drivers Lauer data Based upon 1100 cases
15 20 25 30 35 40 45 50 55 60 65 75 80
Age in Years

FIGURE I

Legend: —o—o— *Iowa drivers—curve of skill.*
——— *Ordinary drivers—AAA data—accident susceptibility.*
– – – – *Ordinary drivers—Iowa data—accident susceptibility.*

The Iowa data show some indication of a bimodal distribution. Drivers over 45 have not had cars as great a proportion of their lives; hence, interpretations have been based on the secondary mode of the curve since it includes a group of drivers who have had more nearly comparable records of driving. The high points on the curves have been arbitrarily equated for the purpose of comparison. The period of safest driving lags considerably behind that of superior skills.

ARE TESTS OF DRIVERS WORTH WHILE?

There has been considerable discussion (5) and (8) about the validity of certain tests (3) and measures of driving ability (7). This should rightly be. We have a right to know whether any measuring device is worth while, whether it is reliable and valid. It must also be emphasized that any other method of evaluating driving is equally open to question. The conventional type of drivers' license examination must also be scrutinized. Correlations with good rating scales have shown a low relationship of examiner's ratings, particularly for men. The effect of drastic court action may again be questioned. The fact is we are now absolutely certain that any method of accident-prevention used, up to the present, is valuable or will pay dividends and a reasonable return on its cost. A temporary deterring effect on accidents may easily be followed by a letdown in morale of both the driver and the enforcement officers, resulting in marked increases in accidents. Therefore, statistics based on short periods of time *before* compared with similar periods *after* improved enforcement, physical change of the highway, or various educational campaigns must be considered only with necessary reservations. Any criticism which may be leveled at scientific attempts to evaluate driving performance may be redirected with triple emphasis at any other method used for rating, classifying or evaluation of drivers, since the latter procedures are subject to all and many other weaknesses and lack the precision of the former. In other words, if scientific measures of drivers are of no great value, it is axiomatic that the drivers' license examination as it usually exists is of little value. However, it should be stated that until a satisfactory criterion of safe driving is established, no high validity coefficients may be expected. Probably the same is true of other practices in society, but in the absence of validation methodology we seem content to be "led by the blind." Such a criterion (6) has been developed if examiners could be encouraged to use it.

WHAT ARE SOME OF THE PHYSICAL CHARACTERISTICS WHICH HELP IN SKILLED DRIVING PERFORMANCE

We may say in a very brief way that it has been found the driver rated as superior by superintendents is: (a) more active but inhibited, (b) average or above in size, (c) strong, (d) consistent in his action, (e) mechanically inclined and apt in coordination in reactions of a gross type. In addition, he has had five to ten years' experience which will help him bring various essential operations of driving to a high state of perfection. Other things being equal, a group of drivers selected on these points will be most successful in keeping out of accidents. The primary physical characteristics must, however, be supplemented by aptitudes of the higher processes and functions controlled by the higher brain centers. Unless the latter are considered, much will be lost in any testing, examining, or evaluation procedure.

WHAT ARE THE MENTAL CHARACTERISTICS WHICH ARE NEEDED IN SKILLFUL DRIVING?

To focalize on the most important aspect of these characteristics, one may say that an accurate awareness of surroundings and the ability to make momentary adjustments to the environment is one of the most valuable assets to good driving, as well as to safe driving. This may be called good judgment or mental alertness and is closely related to intelligence. Poor judgment and low intelligence go hand in hand. Intelligence, however, now has a different interpretation than formerly. One may have one, or more, of eight or nine types of intelligence. An artist may have very good artis-

tic intelligence and judgment, but alas, he may be woefully lacking in economic intelligence. A musician may be able to evaluate symphony orchestras and memorize to the extent of volumes, but he may fail to judge accurately the disposition of his neighbor who objects to midnight "woodshedding" of technical passages of score at home.

Good judgment comes from basic inherited mechanisms capable of responding to the surroundings and carefully developed discriminative abilities brought about through careful training and experience in actual life situations. Bad judgment, on the other hand, comes through lack of experience or slouchy and/or unsystematic observation. Persons of fair ability often make very poor judgments which lead to mishaps, and commit blunders that are too often disastrous and unnecessary. The solution seems to lie in proper training of beginning drivers. Only in this way can safe habits be developed in driving, as in other activities. What the individual lacks in native endowment one can make up to him, at least in part, by careful training.

DO EMOTIONAL STATES AFFECT DRIVING?

Emotionally, the driver should be stable and fully responsible for his actions. Excessive timidity, overconfidence, impulsiveness, and indifference are bad attitudes which stalk the highways. We object to the term carelessness since it is a "catch-all" that covers a multitude of sins. One is careless in some specific way. Worry and certain behavior aberrations such as narcolepsy, paranoia, delusions, and amnesia most likely contribute to accidents in some degree. Using drugs and narcotics, as well as loss of sleep, before driving are recognized as dangerous and probably are somewhat related to the high night-fatality rates. It has been shown that one is three times more likely to have an accident at night when traffic is equated. Alcohol may grossly alter one's normal mode of responding and reduce efficiency.

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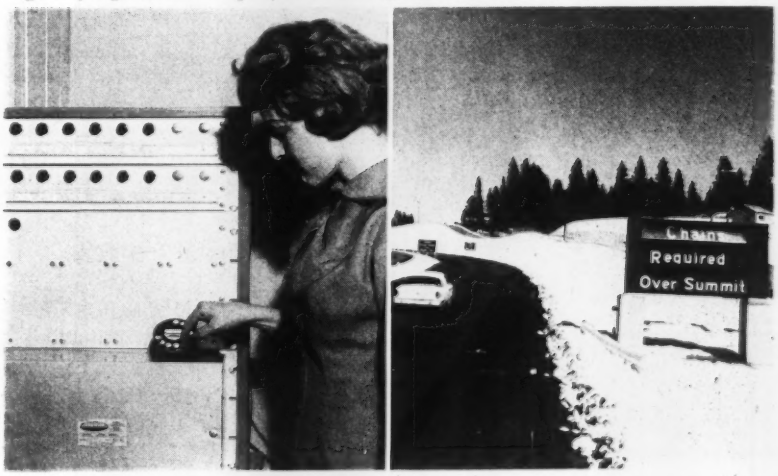
RADIO-CONTROLLED HIGHWAY SIGNS

California Flashes Warning in Seconds to Motorists Regarding Sudden Changes in Weather and Driving Conditions.

Extremes in weather particularly during the winter months produce a wide variety of road conditions confronting the unsuspecting driver with serious driving hazards and creating a difficult problem in keeping motorists informed of the situation on the road ahead. In an approach to this problem, the California Division of Highways is experimenting with a radio-controlled highway sign which employs three long, three-sided units (triangular in cross-

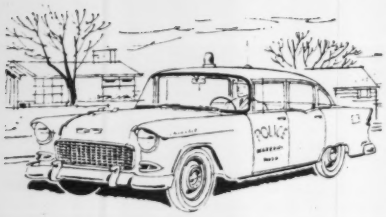


section), one above the other. These units are rotated by electric motors actuated by a system of relays at the Central Control Station almost identical with those used in dialing a telephone. In fact, an ordinary telephone dial is used to send the signal which changes the designations on the sign. The system is designed to indicate the the Control Station not only that an "order" to change the reading on the sign has been received but also that compliance with the order has been accomplished.

By using various arrangements of the three movable units, 27 combinations of messages are possible. Six different combinations are being used currently to present any one of the following six messages:

Road clear over summit;	Chains required ahead;
Road closed over summit;	Chains required over summit;
Caution required—icy ahead;	Caution required ahead.

EDITOR'S NOTE: The second in this series of two articles will appear in the next issue of POLICE. ★★★



The One-Man Patrol Car— Patrol Procedure When a Crime Is in Progress

By Chief Richard T. Runyan and F. Samuel Ostertag

EDITOR'S NOTE: *This is the 10th in a series of eleven articles appearing in consecutive issues of POLICE dealing with the techniques of the* ONE-MAN PATROL CAR OPERATION. *They are based upon training bulletins prepared by the Corpus Christi Police Department to implement a conversion to the one-man patrol car system. The first article appeared in the May-June issue of the Journal.*

DISCOVERY OF THE CRIMINAL

DANGER to the patrolman is the greatest when he surprises a criminal in the act of committing a crime. At this point, the criminal makes a quick decision — whether to commit a more serious crime (assault or homicide), or to submit to arrest. Often he risks the greater crime in a gamble for freedom. An officer must be particularly alert in such a situation, for the suspect's reaction is likely to be emotional and unpredictable. Knowledge of proper procedures and a reasoned approach to a difficult situation will often give the patrolman a life-saving advantage over the criminal.

PROCEDURE TO BE USED WHEN A CRIME IS IN PROGRESS

Once the first call is received, the number of cars to be sent to the scene of the crime is left to the discretion of the dispatcher. Because many patrol beats are very large, the dispatcher may have only a general idea about the location of each car. Any officer in the immediate vicinity of a crime when a call is broadcast should notify the dispatcher of his exact location so that the dispatcher will know which units are closest to the area.

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No patrolman should go to the scene of the crime unless ordered to do so by the dispatcher. It is difficult enough to assure a proper and efficient coverage at the scene without the complications brought about by the presence of unauthorized personnel in the area. In the event additional help is needed, the officers at the scene should request that help from the dispatcher, but other patrolmen should not respond to the call unless instructed to do so by the dispatcher.

ACTION AT THE SCENE

Officers assigned by the dispatcher should go immediately to the address at which the crime has been reported. The approach should be quick and quiet. Sirens should be sounded only if the dispatcher has specified their use in the approach. All persons and automobiles in the immediate neighborhood of the reported address should be surveyed, and if possible, the license numbers of the cars should be noted.

At night, the officer should turn off his lights and motor, coasting the last distance to his stopping point; he should park three or four doors away from the house or building in which the criminal activity has been reported.

The duty of the first officer to arrive is to cover the most likely avenue of escape. Usually, planned escape routes are at the rear of buildings. The first car dispatched to the scene (which will usually be the patrol in whose district the offense is occurring) is responsible for arresting suspects. It is this patrol also that conducts the preliminary investigation and makes the report.

When suspects have fled the scene, the first car, and the first car only, takes the information for the initial broadcast. The responsibility for issuing the pickup order on the fleeing suspects belongs to the first car, whether it is a traffic, detective, juvenile, or other unit.

The first officer at the scene is automatically in charge of police activities until a ranking officer arrives. Ranking officers should use discretion in relieving junior officers from command, lest the officer already on the scene has information not immediately apparent. Under any circumstances, the ranking officer should avail himself of all information that the junior officer is able to supply.

Patrolmen arriving on the scene after the first unit should take up logical posts to prevent escapes, at the same time observing suspicious pedestrians and cars. Unfounded calls should be reported to the dispatcher immediately, so that he may withdraw the orders issued to other cars in the area.

PROCEDURE WHEN A CRIME HAS ALREADY OCCURRED

The first patrolman to arrive at the location of the recently committed crime contacts the complainant, acquires descriptions of the criminals and their vehicle, and issues a pickup order. The first car dispatched to the scene will conduct the preliminary investigation and make the report.

PROCEDURES FOR UNITS IN THE VICINITY OF THE CRIME

Common sense must be used by officers patrolling or cruising in districts adjoining the vicinity of a crime. Careful note should be made of descriptions transmitted by the dispatcher. Good procedure re-

quires the officer to cruise possible avenues of escape and to be watchful for suspicious persons who might fit the broadcast descriptions.

The patrolman should estimate the distance the criminal might have walked from the scene of the crime (approximately one block per minute), and patrol in that area. If it is known that the suspect is escaping in an automobile, the officer must take into account the reported time of the crime in selecting the distance at which the patrol is to be made. It is obvious that a motorized suspect can be a very great distance from the crime scene in a very short time. Thus, it is usually futile to search the immediate vicinity, except in an effort to locate a possibly abandoned escape car.

Alleys should be as carefully searched for escaped suspects as are streets. The search should be thorough, with the officer doubling back and forth, and circling, to be sure that nothing has been missed. The search should be continued until the patrolman is confident the hunted criminal is not hiding in the area.

When a suspect is seen, he should be stopped at once. The arresting officer should search him, notify the dispatcher of his apprehension, and proceed with questioning.

DO NOT GO TO THE SCENE OF THE CRIME UNLESS ORDERED TO DO SO. DO NOT LEAVE THE SCENE OF THE CRIME UNLESS ORDERED TO DO SO LEST A FELLOW OFFICER BE LEFT IN DANGER. ★★★

JUVENILE COURT JUDGES AND THE "NO PUBLICITY" TRADITION

The techniques of juvenile correction are less familiar to many people than those of brain surgery. No court needs "publicity." What it needs is a maximum of information in the hands of a maximum number of people.

So says James E. Fain, editor of the Dayton (Ohio) *Daily News*, in answer to the question, "Who Do the Courts Belong to, Anyway?" In the October issue of the National Probation and Parole Association *Journal*. His article is one of four on the juvenile court. The issue also contains the 1959 edition of NPPA's Standard Juvenile Court Act.

Mr. Fain tells juvenile court judges that they have not "sold" the public on their courts to the point where it will provide the money the court needs to do a good job. "The juvenile court," he says, "has had its head in the sand, going about routine operations without understanding its debt and its need to report graphically and completely to its ultimate owners, the citizens of the community."

Confidentiality of names in juvenile cases, he says, "is not nearly as great a difficulty as it sometimes seems. The problem comes when it is used as a cloak to hide nearly all of a court's operations. This sometimes happens because a judge is timid.

"The last thing he wants to do is raise the ugly specter of new taxation, of civil service.

"He uses the turtleshell of confidentiality to hide from reality, not because he is a rascal but because he is a milquetoast. He is not a rat, just a mouse.

"More often, the court permits confidentiality to be abused through unthinkable default. It doesn't intend to hide; it merely fails to understand the special circumstances that confidentiality imposes. It fails to realize that, when the public is barred from some details of a case, the need to inform people up to the limits of that barrier is intensified."

He tells judges that they should account fully and often to the public, by putting faces on statistics—without necessarily revealing the identity of the person involved. "Publication of these stories on a day-to-day basis probably does more than any other single practice to increase understanding of the court's operations."

He says that those who channel information to the public should be absolutely candid about the court's deficiencies and bad decisions.

Another aspect of newspaper treatment of crime news is discussed in an article describing "The Juvenile Court Judge's Job," by Harry L. Eastman, presiding judge of the Cleveland juvenile court. Judge Eastman says:

"If an adult court has a heavy docket it may be criticized for not disposing of its cases expeditiously, but no one would think of blaming the court for having a lot of them. On the other hand, we in the juvenile court are judged by our ability to keep our docket down, a matter which obviously lies outside our province. This is because the public persistently misconceives the court's function, holding the court responsible for preventing delinquency."

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The Most Important Man

By A. Robert Matt

EDITOR'S NOTE: *The author holds the B. A. degree in Police Administration from Indiana University, and has completed one year in the Law School at the same institution. He was a Trooper in the Indiana State Police from 1952 to 1955; Alumni Field Secretary for Indiana University 1955 to 1958; at that time he was appointed Assistant Director of the Center for Police Training at this institution, noted for its contributions in the police training field. Just in case all of this doesn't keep him busy, he is also Captain of Detectives in the Police Department of Bloomington, Indiana. His teaching responsibilities at the University include Techniques and Mechanics of Arrest; Public Speaking and Public Relations for the Police Officer; Techniques and Mechanics of Foot and Motor Patrol; and the Use of Police Firearms. Captain Matt has been on the receiving end for awards and citations in Marksmanship and as a citizen of the community, for his civic contributions.*

In the following article, the author indentifies THE MOST IMPORTANT MAN *in police organization. See if you agree.*

WHENEVER and wherever policemen get together a "skull session" invariably develops. Quite naturally the discussion is always about police work. If the wives are along they simply have to sit idly by until the men have talked themselves out.

Eventually the discussion moves to the point where everyone is trying to make a decision as to who is the most important man in the department. If there is a laboratory man present he puts up a pretty good argument for the importance of his job. After all the society in which we work and live is increasingly more complex. It is only through the services rendered by the laboratory technician and the equipment available to him that law enforcement agencies are able to cope with a more hardened and skilled criminal. This is a pretty good argument and one which merits some thought.

There may be a radioman in the crowd. Good old "Sparks". He'll let you know that if it weren't for him our whole system of law enforcement would completely collapse, for without communications the modern day police officer would be ham strung to the point where his life would be constantly endangered. This is a good point, and it is true to a great extent.

As the conversation continues the man who reloads all of the department's ammunition pipes up and says that he, singularly, is probably the most important man in the department. He points out that if he didn't reload all the ammunition used by the department in it's shooting program there wouldn't be any shooting program. Without a firearms training program, nobody would know how to handle his service weapon, and consequently the life of every officer would be in constant danger from the lack of training. The shooters in the crowd readily agree with this argument.

Finally, somebody makes the statement that the most important man in the department is the man who does the actual police work. This is the patrolman, the man on the beat. He's the backbone of the department. He is the department's public relations and advertising man. He is this nation's Bill of Rights in person. He is a friend to all and stranger to none. He is the criminal's arch enemy and sworn adversary. There is an old saying, "When you get a good man out on the beat, keep him there because good men are hard to find." Whoever initiated that statement had all of the qualities of the "career cop" in mind.

The discussion usually terminates with all in complete agreement. The man on the road, or the beat, is the most important man. Nothing to do but good solid police work. Do the job and do it well. The satisfaction of rendering service to the public while commanding respect for the law and the department is payment enough.

The thought of how that man developed into a competent police officer was never discussed in the hypothetical conversation. It's only logical to assume that there was an influencing factor along the line some place. What was it . . . Who was it? It was the Police Training Officer. He is the man who was the most influential in turning out the officer we all respect and admire. Oh yes, I know what you're saying, "This guy is nuts. Our outfit isn't big enough to have a Training Officer. We've only got two dozen men on the Department and none of us ever went to any Training Academy. Sarge Jones taught me everything I know. Now, there was a real Police Officer."

That's right, your department isn't hardly big enough to have an Academy, let alone a Police Training Officer. At least a Training Officer officially appointed by the Chief. But, did you ever stop to think how many new men were trained by Sarge Jones? You're right again, just about every one of the new men for the last fifteen years. Sarge Jones was the unofficial Training Officer for the Department. Officially or unofficially he had the attributes of a good Police Training Officer.

What are the attributes of a good Police Training Officer? First, what are attributes? Daniel Webster defines attributes as, "that which is attributed, as a quality or character ascribed to, or inherent in, a person or thing". The important word in the definition is in-

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herent. The qualities that are inherently present in a good Police Training Officer are the qualities that were inherent in Sarge Jones. These qualities or attributes are seven in number and they all add up to a MILLION. They are:

M entally stable and morally strong
I nspirational
L atent ability
L eadership
I ntegrity
O bjectivity
N aturalness

MILLION

The first letter of each quality adds up to a MILLION, and that's what a good Police Training Officer is worth to his Department. Let's examine each one of the attributes.

Mentally stable and morally strong. This phrase is reminiscent of being a Boy Scout. The Training Officer must be mentally awake and stable at all times. He must be ready and willing to accept and try out new ideas. From all quarters of the department he must draw the thinking of those about him. Consultations with outside sources and agencies for information about new training techniques must be his daily duty. The constant search for additional knowledge brings him into contact with all kinds of people, and at this point he must be a moral giant. Of necessity his morals must be beyond reproach and above question.

Inspirational. The ability to inspire confidence is an inherent quality. Some men have it and others do not. It can be developed to a certain degree. Careful planning, clear thinking and smooth execution of an undertaken task inspires the confidence of the men with whom the Training Officer comes into contact.

Latent ability. There must be within the Training Officer the latent ability to stimulate the "rookie" and spur the "old timer" on to greater heights. This is a dormant and hidden ability which is apparent only when the occasion demands.

Leadership. A leader among men is the leader of the group. His aims and ideals must be clear and concise. They must be unselfish and sincere. "For the good of the Order" must be the attitude of the Training Officer. This attitude makes him emerge as one of the true leaders in the department.

Integrity. Giving credit when and where credit is due, being pure of mind and sound of heart is the quality which singles out the Training Officer as the man in whose footsteps many want to follow. Only friendship, loyalty and admiration are the net profit of this attribute. Animosity, jealousy, and hate are never synonymous with the words Training Officer.

Objectivity. The ability to view events, ideas and future plans with a detached, impersonal and unprejudiced attitude is the creed of the Training Officer. An aim and an end to all of his actions must be the complete welfare of the department. Routine and tradition cannot exist as his guide. Only objective foresight toward a more efficient and highly respected department can be his goal.

Naturalness. The Training Officer must be natural in action, word and deed. He must be himself at all times and never allow an artificial air of self imposed importance, which inevitably drains away his value to the department.

The Police Training Officer who is worth a MILLION has a personality, as a result of the above seven attributes, which makes him liked and respected by all who know and work with him. He isn't a "four flusher" or a fellow who is constantly looking beyond you, to the next man, and what that man can do for him. He isn't a shallow, back slapping, hand shaking individual, but rather a genuine, interested, competent police officer whose desire is to train other men to perform one of the toughest jobs in the nation today. His friendship is sought and his advice is admired and respected.

This personable attitude of the Police Training Officer makes him a true administrator. The ability to delegate authority and responsibility to those who work with and for him is the result of his personality. It enables him to get the job done in the quickest and most efficient manner. He inspires confidence in himself and stimulates in those subordinate to him a desire to do their best. He arouses an awareness of his value to the Department in his Superiors. This ability to laterally and vertically instill, inspire and stimulate the men of the department makes the Police Training Officer the most important man in the department.

The most important man is law enforcement's answer to the advertising world's Man in the Gray Flannel Suit. The Police Training Officer is the Man in the Blue Flannel Uniform. He is the most important man. He is the composite of the public relations man, the advertising man, the educator, the business executive, the leader, and father confessor. He is THE MOST IMPORTANT MAN in the police field today.

EDITOR'S NOTE: THE MOST IMPORTANT *MEN* in this picture are located in the last four rows. They are hand-picked police officers selected from various law enforcement agencies in the state of Washington on the basis of special interest and ability to be trained as Instructors in a state-wide zone system of in-service training designed to bring the best in police practice and procedure to the doorstep of every police officer in the state. ★★★

Investigating Crimes Involving Explosions

By Deputy Inspector John A. Ronayne

EDITOR'S NOTE: *Explosion investigation demands its own investigative techniques in addition to those normally employed in routine case investigation. In the following article, the first in a series of two written exclusively for* POLICE, *Inspector Ronayne performs a real service in making available to the field tested procedures that can be effectively employed in the investigative approach to crimes involving the use of low and high explosives. The second article will appear in the next issue of the Journal.*

The Inspector entered the New York City Police Department in 1940 as a patrolman and served in that capacity until he was recalled to active duty in the Army as a reserve officer in 1941. He was on assignments in the United States, the South Pacific and the Philippine Islands in the Artillery and Military Police, attaining the rank of Major. He returned to the Police Department in 1946, where he served on patrol duty as a patrolman and subsequently as Sergeant. Later assignments included service in the Police Department Legal Bureau as a Sergeant and Lieutenant, Desk Lieutenant in a Patrol Precinct, Supervisor of plainclothes patrolman, Trial Counsel in the Department Trial Room, Commanding Officer of the Hack Investigating Squad in the Division of Licenses, Commanding Officer of the Cabaret Bureau and finally as Executive Officer.

Inspector Ronayne also served in the Detective Division as Commanding Officer of the Central Investigation Bureau and the Bureau of Special Service as well as in his present command, the Commanding Officer of the Bureau of Technical Services embracing the Police Laboratory, Ballistics Squad, Bomb Squad, the Bureau of Criminal Identification, the Photographic Unit and the Correspondence Bureau of the New York City Police Department. The author graduated from Fordham College in 1937 with the B. S. degree and holds the LLB degree from Fordham Law School and the degree of Master of Public Administration from the Graduate School of New York University and he is currently completing the requirements for the LLM degree at the same institution.

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IN a preceding article we discussed the problem of the unexploded bomb. Emphasis was placed on the explosive rather than the incendiary type of bomb and, in particular, on the disguised form of such a device, the so-called "suspected package." The current article is devoted mainly to the situation in which an explosion has already taken place and an investigative problem exists. Again, our treatment will stress the explosive rather than the incendiary type of bomb: The investigator, then, is faced with a scene of wreckage; the physical clues appear to be either nonexistent, irrevocably scattered, or mutilated beyond recognition; even the eyewitnesses may have been killed in the blast.

Appropriate attention to routine police tasks is assumed throughout so that our space can be devoted to the special features of an explosions investigation. It is assumed, for example, the injured have been cared for, measures have been taken to extinguish fires or prevent their subsequent outbreak, and that the possibility of further accidents or explosions from utility hazards or other dangers has been eliminated. The investigator must now determine the nature and cause of the explosion; initially he must distinguish between an accidental explosion and one produced intentionally or by criminal negligence.

INITIAL ACTION

All persons who witnessed the explosion or observed any significant attendant circumstances should be detained, identified, and interviewed. Observations concerning the number and nature of the explosions, the color of smoke, the presence of peculiar odors and other observations of the senses will be important. Recollections concerning the movements of persons before and after the occurrence should be recorded while they are fresh in the witnesses' memory.

The scene of the explosion should be placed under safeguard as soon as possible by assigning an adequate number of officers to the duty of rigorously excluding unauthorized persons. To preserve the crime scene as far as possible, rescue workers should be cautioned against unnecessary disturbance of the wreckage and the fire chief requested to restrict overhauling to a minimum.

TYPES OF EXPLOSIONS

The investigator should be able to distinguish between the two basic types of explosions. A low explosive results in a "push" effect, leaving a diffuse pattern with no marked progression of effect from a definite point source. The high explosive incident is marked by a definite "seat" of origin. Movable objects are blown outward from this point, the force of the blast diminishing in intensity with distance.

Low explosives are characterized by the relatively low velocity with which the energy wave is transmitted — a few thousand feet per second. Gunpowder, gasoline, and

carbon monoxide are examples of low explosive substances. The explosion is identifiable by two characteristics: a low frequency sound which has been variously described as a "puff," "boom," or "pop," and the absence of relatively severe damage in the area of the explosion.

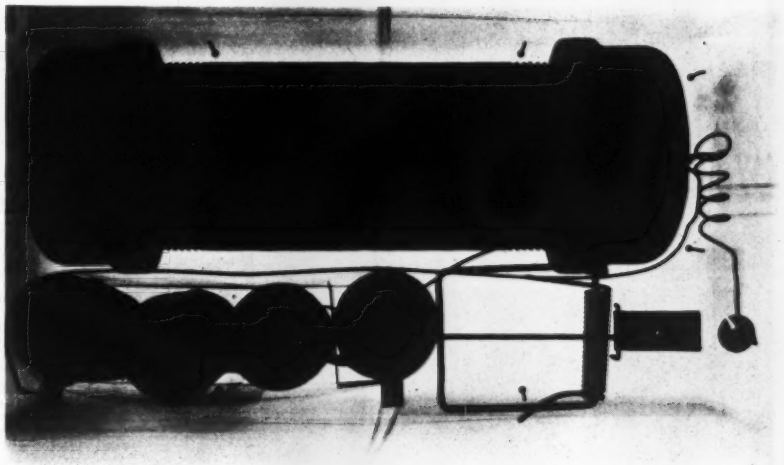
High Explosives, on the other hand, such as dynamite and nitroglycerine, have velocities as high as 25,000 feet per second, are accompanied by a shattering high frequency sound, and reveal a definite center of explosion. On the basis of these differences it is often possible to identify the character of the explosion even though no traces of the explosives remain.

CRIME SCENE ACTION

Crimes involving explosions present many of the difficulties usually associated with arson, paramount among which is the partial or total destruction of evidence tending to establish a corpus delicti. Hence, although the usual investigative steps are followed at the crime scene, great care must be taken in handling the articles of evidence and interpreting the pattern suggested by their location.

Defining the Scene — Depending on the severity and location of the explosion, the crime scene area may be restricted to a room or may extend over an area of several acres. Determine the outer limits of the area to be searched and post a guard to prevent the entrance of unauthorized persons and the removal of any object from the area. The posting of placards marking the limits of the crime scene area is helpful in these situations. Of course, special problems will be presented by certain types of explosions. For example, a time bomb exploding on a plane in flight may result in the distribution of wreckage over more than a mile of territory.

The Colorado aircraft disaster of 1955 provides an example of an exceptionally difficult "crime scene," since the mid-air explosion resulted in the distribution of fragments over a wide area. In this case a 23-year-old youth had plotted to kill his mother and collect the insurance together with the prospect of a major share of a $150,000 estate. The perpetrator had tied together 25 sticks of dynamite and attached a timing device connected with a dry cell battery and two blasting caps. The whole was concealed in a suitcase which his mother took aboard the plane.



Radiograph of a suspected package, revealing a pipe bomb and trigger mechanism.

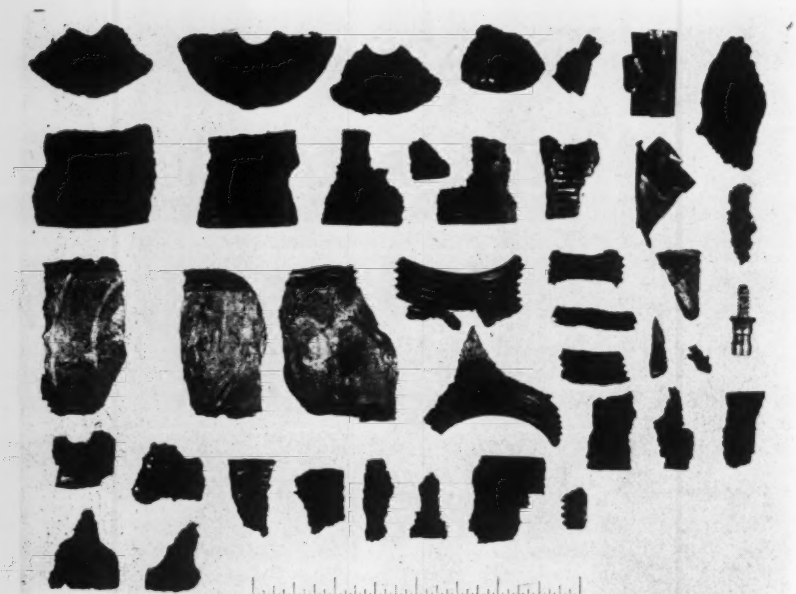
In the mid-air explosion 44 persons were killed. It was found later that the perpetrator had bought $37,500 in vending machine insurance policies on his mother's life before planting the bomb in the DC-6B. Further investigation revealed a previous forgery charge against the bomber.

The Colorado explosion was the first known case of successful bomb sabotage in the history of this country's airline operations. In almost all seven of the other known attempts, the culprit was identified and apprehended within a short time.

Documenting the Scene — Because of the significance of the pattern of strewn objects created by the explosion and the importance of tracing the point of origin through this pattern, documentation should be unusually painstaking.

a. ***Photography*** — Overall photographs of the scene and sectional views of important areas should be taken before anything is disturbed. During the search, closeups of articles of evidence should be taken as they are discovered. If it is helpful to include markers or signs in photographs, it is advisable to take two sets of such photographs: one with and one without the markers in the field of view. The use of transparent overlays with unmarked photographs should also be considered. Significant objects and places can be marked on the transparent overlay to correspond to the exact location of such items on the corresponding photograph. The report of investigation should include photographs as a supplement with text references to evidence objects and areas at the scene keyed to the symbolism used in the photographs and sketches.

b. ***Sketch*** — a representation of the scene should be made by means of sketches — an overall sketch for the whole scene and individual sketches for separated areas such as rooms. Significant items of evidence should be located by symbol and accurate measurements from fixed points. Rectangular coordinates are preferable for indoor scenes and other small areas while polar coordinates are more suited to outdoor explosions extending over broad areas. Compass directions, legends, and other essentials should be given in each sketch.



Fragments of the pipe bomb collected after demolition.

c. ***Investigator's Notes*** — Although photographs and sketches can be invaluable supplements to the investigative report, they should not be expected to take the place of the investigator's notes. These should contain detailed descriptions of the scene and each important object in it. Identifying data for each evidentiary article should be inscribed in the notebook.

Searching the Scene — The investigator should avail himself of any available technical assistance in his search of the crime scene. Accompanied by a Bomb Squad detective, a police laboratory expert, an explosives specialist, or even an arson investigator, he should search the scene for physical evidence. If a point of origin can be located, the spiral method of search can be used effectively. The searchers should begin at the point of origin and spiral outward, i.e., progress outward from the point using increasingly larger circles. Limitations on the use of this search procedure may be set by the extent of the area.

The searchers should look for evidence which will establish a corpus delicti, viz., the fact that an explosive device was used and that there was an intent to injure some object or person. They should, of course, be constantly alert for clues which may lead to the identity of the perpetrator or link him to the scene. Pieces of metal such as pipe fragments, wire, or parts of a timing device; string, paper, leather, wood, and other fragments which may have been used to package the bomb; unexploded materials, pieces of paper that may have been part of the explosives wrapping; and any other trace of evidence which may have part of an explosive device or its container should be carefully collected after its location and initial appearance has been documented as described. If the crime scene is outdoors, it may be necessary in some cases to collect debris in large containers and subsequently sift it for evidence. This procedure was used in the case of the New York World's Fair bomb with the result that a sufficient quantity of clue materials was recovered to enable the experts to identify the clock, explosive materials, and suitcase, to reconstruct the bomb, and to trace some of the components.

The value of trace evidence in the investigation of an explosion was dramatically shown in a California case in which a dynamite bomb found near the home of a prominent citizen was submitted for laboratory examination to a microanalyst, the late Dr. Albert Schneider, dean of the Berkeley School for Police Officers. Dr. Schneider examined every part of the package minutely — burlap and paper wrappings, the dynamite sticks, caps, fuses, and a piece of string. Particles clinging to this latter item provided considerable information under the microscope. Dr. Schneider drew the following conclusions from his examination: "This twine came from a farm upon which will be found a fast-running stream of water, pine trees, black and white rabbits, a bay horse, a light cream colored cow and Rhode Island red chickens."

On reading this report there was considerable head shaking and exchanging of glances among the more cynical officials; nevertheless, they filed the data for future reference. The dynamite was later traced to an explosives dealer in Novato, California, who gave the police details concerning three recent sales of dynamite in the neighboring communities. On investigating the three purchasers, the police officers found that one of them lived adjacent to a farm which matched that of Dr. Schneider's description in every detail. The farmer was innocent of the crime. The dynamite, however, had been stolen from his premises by two farm hands, comparative strangers in his employ, who later proved to be the guilty parties.

Examination of Victims — Deceased persons should not be disturbed until the medical examiner (or other person serving in a medico-legal capacity) has made his examination to determine such matters as the cause and manner of death, the time of death, and whether death took place before or after the explosion. Where the victims have been mutilated or burned to a degree that prevents recognition by relatives or associates, identification

may be made by means of fingerprints, teeth, and bones. The medical examiner can provide information as to age, height and weight even though only part of a body is available. He can also provide data on operations including the length of time since the operation and pathological findings as to physical ailments which can lead to identification.

Identification can be greatly aided by laboratory examination of clothing, documents, and personal items, particularly metal articles, such as watches, rings, or cigarette lighters. Since the position of all such articles with relation to the body is important for identification purposes the exact location of each item should be recorded before it is collected.

Utilities — A bomb which is set off unknowingly by an action of an occupant of the premises may present a problem in regard to the source of electrical energy required for detonation. Electrical or telephone equipment can be used to supply the necessary power. Check such devices as telephones, electric clocks, heaters, coffee pots, and lamps for breaks or additions in wiring. The wiring systems of the engines of powered devices such as lawn mowers, compressors, and pumps should also be examined. The presence in any of these motors of extraneous wires or fragments of fuses, caps or detonators should provide a lead.

In certain cases, as for example those of suspected sabotage, the entire electrical system including motors, appliances and other apparatus, should be examined for defects such as exposed wires, incorrectly installed wiring or fuses that could result in overheating or sparking. The investigator should enlist the aid of a safety expert or an electrician in this phase of the search for evidence. Experienced assistance of this character is required not only because of the complexity of the investigative problem but also because of the need for expert testimony in regard to these matters in the event of a trial.

Torn matches (left) found at the scene of a bombing, are fitted to a match book discovered on the person of a suspect.

In a New York case to which newspapers gave the garish title "The Case of the Golden Bomber," a pipe bomb was wired to the utility lines so that when the intended victim switched on the cellar light an explosion would take place. The victim survived, however, and assisted in the solution of the case by indicating the motive: $985.00 concealed in a metal container in the cellar was missing. The perpetrator proved to be an electrician who had access to the cellar for storage facilities. Part of the evidence that linked him to the pipe bomb was a gilt (gold) paint which through some whim he had chosen to decorate the bomb. On conviction he was sentenced to from two to twenty years.

The search of the cellar in this case required extreme care. The defendant had stored away 220 pounds of powder, 259 flares and 115 bombs. ★★★

STATISTICS FOR POLICE EFFICIENCY

What Electronic Data Processing May Do for The Police Chief in the Future

By John I. Griffin

EDITOR'S NOTE: *The police march toward professionalization has been characterized by fairly prompt application of new developments in science and technology to its problems, including among others — communications and motorization of the force, and contact with the laboratory sciences in the examination of questioned materials involved as evidence in criminal cases. Paralleling these developments has been an increasing interest on the part of the police in the application of records data and statistical method to the analysis of police problems and the development of problem solutions, including the detection of emerging situations, deployment of the force, beat construction and many others.*

Police interest in these matters came into sharp focus on September 29, 1959, at the Annual Convention of the International Association of Chiefs of Police in New York City during a special session which featured a Computer demonstration by I.B.M. personnel and a discussion led by Professor Griffin concerning the application of this equipment and its associated techniques to the police problem. The present issue of STATISTICS FOR POLICE EFFICIENCY *is based upon the remarks he presented on that occasion.*

INTRODUCTION TO COMPUTERS

A COMPUTER is not a brain, "it is a remarkably fast and phenomenally accurate moron." A computer will do exactly what it is told to do, but the way it does it and the speed with which it does it make the development of computers one of the most sensational aspects of a decade which has seen so many astonishing developments in science and technology. The law enforcement field presents many opportunities for computer applications.

A computer essentially is an adding machine, which performs multiplication by successive additions and division by repeated subtraction. The main difference between a computer and a desk calculator is that once the computer is started it can be made to follow a series of instructions without further guidance. Once the instructions are written out for the computer (this is called programming) it is merely necessary to feed data to the computer. Both data and instructions are stored in the storage or memory unit of the computer. The speed of calculation is so great in modern computers, that the time factor for computing is almost eliminated as a consideration in designing a problem.

The first adding machine was invented by Pascal in 1642. Hollerith invented punch card methods which were first applied on a large scale in tabulating the results of the 1890 Census of Population. Many police departments are equipped for punch card tabulations. The English mathematician Babbage conceived an "analytical engine" in 1830, which was the forerunner of modern data processing systems, since this machine could perform an assigned sequence of calculations, had number storage, and could print the results. Babbage's machine was never completed and it was not until 1944 that the Mark I Calculator was built, a machine very close in its principles of operation to the "analytical engine." UNIVAC (universal automatic calculator) was built by Remington Rand for use in the 1950 census and marked the beginning of the commercial production of a large number of electronic computers for research and commercial applications. Any computing system, whether it consists of a man operating a slide rule, a punch card installation, or an electronic processing system, consists of five essential units: input unit, output unit, the arithmetic unit, storage system or memory, and the control. Before a general-purpose machine can be applied to the solution of a particular problem, a detailed sequence of instructions must be prepared for the control. In this programming process the problems to be solved in the particular application must first be identified.

THE POLICE CHIEF AND HIS PROBLEMS

The types of problems faced by the Chief of Police in a medium or large size department, which appear to lend themselves to computer utilization, include problems arising out of files, information transmission, and allocation of personnel. The need to utilize police and civilian manpower more efficiently has impressed itself upon all chiefs because of the shortage of suitable applicants, shorter working hours, and rapid growth of the human and physical populations for which the law enforcement agencies have jursidiction. In any estimate of the need for new and more efficient methods, it should be recalled that the population of the United States was 75 million in 1900, 130 million in 1940, about 175 million at the

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present time, and will probably reach 200 million within the present generation. It is hardly necessary to stress what this human growth, together with the parallel growth of industrial facilities, means of transportation and housing units will mean in terms of law enforcement.

Law enforcement files include files of criminal identification (finger print and modus operandi files); files of non-criminal identification (licensed personnel, civilian defense, and similar files); files of police personnel (record cards showing skills and aptitudes); files of crime reports; files of licensed premises, and other sensitive locations; files of motor vehicles and licensed drivers. In the case of files, it is necessary to do three things: to establish the file, to maintain the file and to search the file. These three things must be done quickly and efficiently. In some cases searches of the files must be made on an emergency basis to provide identification of individuals involved in crimes or victims of crimes, to identify stolen vehicles or vehicles involved in hot pursuit. Certain computing machines are particularly adapted for use in connection with file problems.

IBM 305 RAMAC

A computer, which provides a storage device that permits rapid access to any of several million characters of data comprising the files, is of special value. The IBM 305 RAMAC (Random Access Method of Accounting and Control) contains the files *in the computer*. That is to say, the information, which in traditional files would be kept on file cards in a drawer, is stored in this type of computer on magnetic disks, two feet in diameter that are coated on both sides with a ferrous oxide recording material. A group of disks are mounted on a vertical shaft, and are slightly separated from one another. They revolve at 1,200 rpm. Information is stored in the form of magnetized spots in tracks around the disks. An access arm moves under electronic control to any desired track on any disk. Magnetic recording heads, mounted on the access arm, read or write information on the disks. Random access means that the file order does not matter, that is, the information can be placed in the disk storage in any sequence, without sorting. For all practical purposes, there is instantaneous search of the file because access time to the files in the computer, including transmission of the data inquiry, search of the file and the output of the reply, takes less than one second.

Group of law enforcement officers gathered around the control console of the IBM 705 Computer during demonstration at IBM World Headquarters in New York.

There is no technical reason why computers of this type cannot handle tens of millions of characters in the file. In fact, the basic single disk storage unit, shown in the illustration, permits the storage of 5 million characters (the equivalent of 62,500 80-column IBM punch cards) and additional disk storage units may be added. Thus, one can conceive of centralized files for an entire metropolitan region, state and perhaps eventually national files. An interesting example of this concept is now under discussion in medical circles, where the proposal has been made that a file be established at a central location containing symptoms related to specific diagnosis, which could be searched by doctors in all parts of the country on the basis of symptoms which they observe in their own patients. In effect, therefore, the computer would have all the

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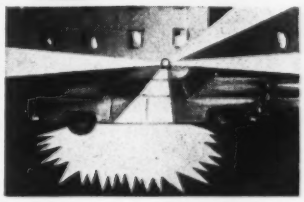
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experience of all the doctors who have made diagnoses. The Air Force uses an IBM 9310 Universal Card Scanner to search files of scientific knowledge to locate a specific scientist who "knows."

TRANSMISSION OF DATA INQUIRIES

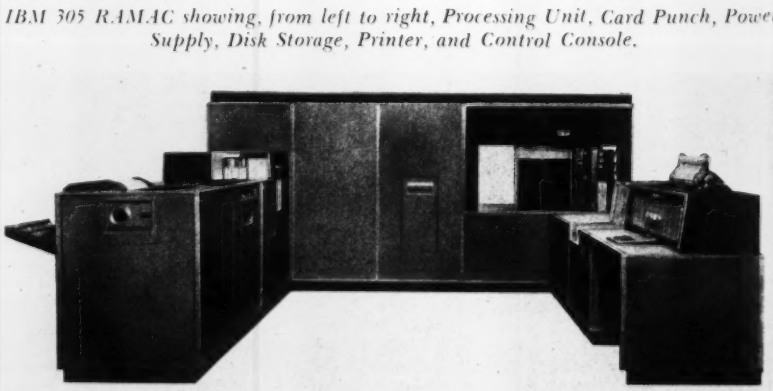
Computer files must be capable of rapid search. In addition, the method of entering data (or inquiries about data) and the method of output must be flexible. The files themselves may, with a 305 RAMAC, be built up from existing punch card files, magnetic tape records, or be typewritten into the computer. The transmission of data inquiries can be accomplished most easily by using the keyboard of an electric typewriter as an inquiry station. The electric typewriter transmits the data inquiry to the system and automatically types out the data replies from the system. In case a large quantity of output is required, a high speed printer can be used which is capable of typing several hundred lines a minute. Inquiry stations can be located wherever convenient, in widely separated police stations, for example, or even in different cities and states. The use of radio inquiry is technically possible, such as inquiries from radio patrol cars which would receive the data reply almost instantaneously. Closed circuit TV can be used to transmit file information.

The use of mark sense cards may meet the needs of special situations where an optical viewing device can sense the cards and transmit the inquiry to the computer file. The use of mark sense cards and mark sense forms is familiar in some police departments where they have been used for daily activity reports, crime records and the like. This type of form is frequently used in connection with civil service examinations, where the applicant marks the answer sheet with a special lead pencil and the answer sheets are scored automatically by machine. The use of an optical sensing device called FOSDIC III (film optical sensing device for input to computers) will make it possible in the 1960 Census of Population to proceed directly from mark sense enumerator schedules to machine and microfilm storage without the necessity of punching cards. Similar optical sensing devices could be developed for law enforcement applications.

PATROL FORCE ALLOCATION

Another problem presented to every police chief is the scientific allocation of his personnel. In the larger cities, the frequent adjustment of manpower allocation factors on the basis of crime reports and economic and social data, has now become possible with modern computers. The computation of significant correlations between the many factors influencing the need for patrol forces in specified areas, can be handled quickly and economically only by means of E.D.P. Thus, the Port of New York Authority has used computers to study the factors needed to reach a rational allocation of police assignments on their vehicular facilities. The many variables involved in this problem required the use of an electronic computer. Patrol force allocation schemes currently in use in police departments generally are based on the theory of police hazards, just as recent work in the traffic control field has based the assignment of traffic officers on selected characteristics of the traffic which they are to control. The testing of these allocation schemes depends upon the processing of a great mass of data, frequently so burdensome a task without computers that recourse is had to "judgment" or "experience," as a basis for establishing the relative weights to be assigned to specific police hazards.

IBM 305 RAMAC showing, from left to right, Processing Unit, Card Punch, Power Supply, Disk Storage, Printer, and Control Console.



PROGRAMMING AN E.D.P. SYSTEM FOR POLICE

The programming of an E.D.P. system is time consuming and moderately costly, chiefly for the services of experienced personnel. However, it should be carefully noted that programming for a particular problem once completed need not be repeated—the problem can be run over and over again with different data, using the standard program. This is the practice in scientific and commercial applications where standard programs are made available by machine manufacturers and developed by the machine users themselves. There are now, in fact, large program libraries.

Since the problems inherent in the development of programs for E.D.P. systems in the police field are basically similar for the various categories of police departments, it would seem reasonable to anticipate that standard programs can be developed. Perhaps the International Association of Chiefs of Police is in a position to sponsor the development of standard programs, which can then be made available to police agencies. Once developed, these programs can be used by police departments to run problems, either on their own owned machines or with the use of data processing service centers which have been established by manufacturers throughout the country and provide computer time on a rental basis. In the process of developing standard programs, the economics of purchasing machines and the specific models to be recommended can be explored in detail. Perhaps the next step in the development of the police profession is E.D.P. The police chiefs of the country, who have accepted the technical advances in communications, automotive transportation and traffic control, as well as scientific advances in criminalistics, must be assumed equally ready to test out modern computer technology.

INSPECTOR GALLATI PROMOTED

The JOURNAL extends congratulations to Inspector Robert R. J. Gallati, Commanding Officer of the Police Academy and Assistant Dean for Police Studies of the College of the City of New York, who was recently appointed a Deputy Chief Inspector by Police Commissioner Stephen P. Kennedy in ceremonies at Police Headquarters. He will remain in command of the Police Academy.

Chief Gallati, 45, has been a member of the Police Department since June 5, 1940 and, in his rise through the ranks, has served in the patrol, detective and plainclothes divisions, as well as in numerous supervisory and administrative capacities.

Inspector Gallati received his degree of Bachelor of Laws at Fordham University—1938 and his Bachelor of Science degree from the same university Graduate School of Arts and Sciences as a candidate for Doctor of Philosophy in Public Administration.

JOHN A. DONDERO MEMORIAL AWARD PRESENTED TO J. EDGAR HOOVER

With over 200 of the world's leading identification officials present in Pittsburgh recently on the occasion of the 44th Annual Conference of the International Association for Identification, John Edgar Hoover, Director of the Federal Bureau of Investigation was named as the recipitant of the First Annual John A. Dondero Memorial Plaque, in ceremonies conducted during the 44th Annual Conference of this Association at Pittsburgh, Pa. The presentation was made during the Annual Conference Banquet the evening of July 8.

The Plaque was presented by Mrs. John A. Dondero in honor of her late husband, who for many years prior to his death in 1957, was President of Faurot, Inc. in New York City and was a world famous pioneer in the field of scientific identification. Mrs. Dondero personally presented the Memorial Plaque to Assistant Director C. Lester Trotter of the Federal Bureau of Investigation, who accepted it on behalf of Mr. Hoover.

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Police Firearms Training Programs

By A. Robert Matt

EDITOR'S NOTE: *Bob Matt's article on expanding police firearms training programs was omitted in the last issue of* POLICE *due to lack of space. The report covering the court decision on municipal negligence was discovered by Chief Weston while on a police survey in New Jersey a short time ago. Together, they sound an ominous alarm concerning the need for police firearms training that should be read by every Chief of Police and his command.*

V. A. LEONARD

WHAT fractional part of an over-all training program should be used for firearms training? How much time, in terms of hours, should be used as the minimum guide for a good firearms training program?

The answers to the above questions are often dictated by the budget of the department concerned and the extent of the available facilities for range practice. Some towns and villages have the money, others do not have the range facilities necessary for training large groups of men firing hundreds of rounds of ammunition.

Many police departments throughout the country are sending their recruits through a week's training in firearms. A training program one week in length will completely familiarize the new officer with his weapon and permit this base to be utilized for further in-service training. If a smaller department cannot afford this week's long instruction in basic marksmanship for reasons of funds or the exigencies of police service it should, at least, provide the new recruit with the National Rifle Association's basic course of 12 hours instruction and range practice.

In-service training in my area, around the University of Indiana, can be quite extensive because neighboring police units are invited to use the pistol range facilities of the Center for Police Training which permits fifty shooters to fire on bulls-eye targets, and twenty-five men to fire from combat positions. Naturally, this permits an expenditure of ammunition which is not possible when large groups of men have to use a range with limited facilities.

The Bloomington Police Department, the Indiana State Police, and the local office of the Federal Bureau of Investigation use this range and offer remarkably similar programs for their officers and agents. An average of 100 rounds, per man, per month is fired during the five or six months outdoor shooting is possible. A program of winter shooting supplements this outdoor practice, but is naturally limited by the number of firing points available at the indoor ranges.

Enthusiastic salesmanship by police training officers is also frequently necessary to increase the time of the firearms training program to a meaningful fraction. Many police executives have risen from administrative backgrounds and don't fully appreciate the need for pounding away at the self-defense training inherent in firearms instruction. The police training officer must learn to cite prevailing practices of nearby departments and reconstruct the situations which lead to death or injury of patrol officers and detectives and present proof that adequate firearms training will help to resolve such situations in favor of the policeman.

Prior to expanding a firearms training program the police training officer should expand his available force of instructors. Firearms training cannot be left to chance or in charge of someone who is not completely familiar with new concepts in both bulls-eye and combat shooting. The individuals selected must be able to inspire confidence and also do a good job of teaching. The Firearms Instructor must know effective teaching techniques and he should be an expert pistol marksman, preferably an individual who engages in competitive shooting and has some experience in reloading cartridges. Police officers tend to listen a bit closer to the instructions of a man who can get up on the range and demonstrate what he has just been talking about.

The task of developing competent instructors rests on the shoulders of the police training officer, the man who also has the responsibility for making certain that the

Address: A Robert Matt, Assistant Director, Center for Police Training, Indiana University, Bloomington, Indiana.

firearms training "fraction" has a voice in the recruit and in-service training programs.

"P.T.O.'s" can send their firearm instructors to the Small Arms Firing School at Camp Perry in August of each year. This school is sponsored by the National Rifle Association and is held in conjunction with the National Pistol Matches. Another firearms instructor's school is held at Indiana University, under a program developed by the Center for Police Training, and is given twice a year, in the early Spring and late Summer. On the West Coast, the law enforcement faculty of Sacramento State College are exploring the basic needs in this important field.

Possibly the greatest strides toward enlarging the scope of firearms training and extending the number of hours devoted to this vital field in the curriculum of both recruit and in-service police schools occurred right here in Bloomington, last May. During the First International Colt's – Indiana University Police Combat Pistol Match, the Center for Police Training was host to a panel of firearms training officers that included Deputy Chief Paul Weston, of the New York Police; Lieutenant William Owen, of the Massachusetts State Police; and Bill Toney of the U. S. Border Patrol. In a three hour discussion, participated in by over 200 training officers and competitors, the entire firearms training program was explored in relation to the need for all police officers to "be combat ready." (Police Training Officers may obtain a copy of these proceedings by writing to Mr. Matt, at the Center for Police Training, Indiana University, Bloomington, Indiana.)

Firearms training is slowly attaining a maturity which will put it on the same level as "mental" instruction in the laws of a locale and the procedures of a police unit, and the "physical" sessions which condition and train an officer to undergo the rigors of patrol and apprehensions of criminals. Open discussions of this problem in the training sessions of larger departments, and in law enforcement classes of the many Colleges and Universities now offering police training courses, will lead to a better understanding of basic needs in firearms training.

A recent study of national statistics revealed that the man who serves twenty years as a police officer will have to defend his life with a gun at least once in that period. And while no statistics can be secured on the exact number of times a policeman is required to draw a revolver from his holster during a twenty-year span, to defend or protect the life and property of citizens of the community, it can be safely assumed that it will also occur at least once.

Now, if a policeman fails in defending himself and is killed or injured, or kills or injures an innocent bystander when he draws his weapon from the holster, it can be readily seen that a tight rein on the purse strings of a police budget is penny wise, and pound foolish. An extensive training program in firearms training is dirt cheap, despite the cost of ammunition, when compared with the cost to the community of an injured or killed police officer or the negligence award when a policeman maims or kills while acting as an agent of his employer and it can be blamed on insufficient training.

AN IMPORTANT COURT DECISION

By PAUL B. WESTON

Municipal Negligence for Poor Pistol Marksmanship Training

In a digest of recent opinions in the *New Jersey Law Journal* of July 2nd, 1959, it was reported that a municipality is liable when it is shown that municipal agents are acting within the scope of their general duties and police chiefs assign a person to police duty and permit him to carry a gun without adequate training, examination as to proficiency in use or instruction as to when it may be used, and, furthermore, that such action constitutes wrongdoing for which the municipality is liable if such negligence "proximately resulted in plaintiff being wrongfully shot."

City Managers and police executives should request City Counsel to inquire into the implications of this case in relation to current firearms training programs. The above comment was digested from an opinion of the presiding justice of the New Jersey Appellate Division, in the case of *McAndrew* v. *Mularchuk and Keansburg*, and dated June 25, 1959.

The contention in this case of interest to police officials and police training officers is that there was actionable wrongdoing participated in by the defendant, a reserve policeman, through the police chief in permitting a person as ill equipped in training as the defendant to perform police duties armed

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with a gun, and it is sound. The jury, it was reported, could have found from the evidence that the Chief of Police knew or should have known the defendant was armed with a gun on his assignment. It could also have found from the evidence that he lacked adequate skill with the gun and there was ample evidence for the jury to conclude he had been inadequately versed in the fundamental rules as to conditions under which he would be justified in firing at or in the vicinity of the plaintiff. The responsibility of the borough through the police chief and predecessor officers in charge, for the defendant's inferable ineptitude is clear. The evidence was that he had never received any training from the borough in use of the gun, had no experience in its use, and was never examined as to his proficiency with the weapon.

Public reaction to this case was conditioned by the fact that the victim was a five-year-old boy shot in the back at chest level by the defendant, while in uniform and attempting to apprehend a disputant in a street argument!

NATIONAL RIFLE ASSOCIATION PISTOL TRAINING MANUALS

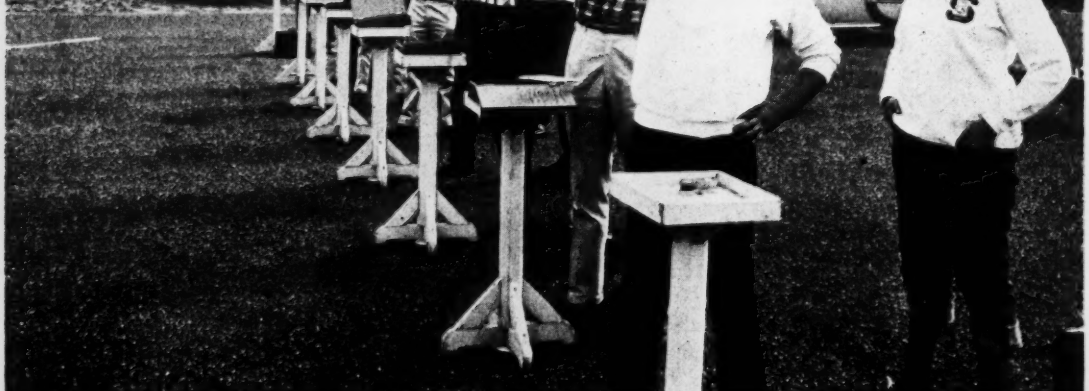
Organized in 1871 for the purpose of giving marksmanship training, the National Rifle Association of America has many other activities, but marksmanship training is still the basic function of this organization. Manuals for the student and the instructor are available at low cost by writing to this organization at 1600 Rhode Island Ave., N.W., Washington 6, D.C. The student's manual, *Basic Pistol Marksmanship*, is priced at 25 cents a copy; the instructor's manual, *Instructor's Guide — Basic Pistol Marksmanship*, also sells for 25 cents a copy.

The objective of the manual for students is to start at the beginning and in the simplest way possible to give the beginner the fundamental information necessary for safety and accurate shooting, while the instructor's guide is intended as an aid in teaching these fundamentals of safety and marksmanship. The guide is divided into three sections: Suggestions for preparation and instruction, Plan of Instruction, and Supplementary helps for the instructor.

Both manuals are excellently organized, written in a conversational style, well illustrated, and based on a "fund" of knowledge, not any one man's ideas in this field.

Also available, at 25 cents a copy, is a manual on training course organization, and a set of pistol instruction charts in color at $2.00 a set. ★★★

GUNNERY TRAINING AT THE PRE-ENTRANCE LEVEL. Sacramento State College, San Francisco City College, Indiana University and several other colleges now offer gunnery training as an integral part of the curriculum offered to students majoring in law enforcement, government, and public administration. Students pictured are firing at the on-campus range of Sacramento State College in California and have embarked on a four-year program of studies leading to an A.B. degree in Public Administration with a specialization in law enforcement. Such courses emphasize the role of marksmanship training in modern police management.



I A A I
International Association of Arson Investigators

The Camera Looks at Arson

By Inspector D. L. Nicks

LEADING law-enforcement agencies and scientific crime detection laboratories have, for years, found photography a valuable aid in making and preserving records, establishing evidence and providing positive identification. Photographic records, evidence photographs, and photographic identification already have proved their effectiveness and today are accepted almost universally as legal evidence.

The truth of the old saying about one picture being worth a thousand words has been demonstrated by the impressive record of criminal convictions attributed partly or entirely to photographic evidence. Through accurate evidence photographs, the juror carries with him to the jury room a vivid picture of the circumstances involved in or surrounding a crime, which often would be confused by words and sometimes tedious description alone. Thus, his mind is free to consider other aspects of the case.

The scope of evidence photography is so broad that we cannot cover every possible phase. Some of you may represent large departments that have complete photographic facilities but for those of you who do not have these facilities I will offer some suggestions.

Let us first determine what a photograph is. Webster says a photograph is "A picture produced by photography." Thus we eliminate a painting or drawing. So we are referring only to a picture taken with a camera.

The difficulty in proving arson in the absence of any admission by the defendant is so great that every technical aid available should be brought to bear on the investigation. The choice of photographs can be guided largely by the broad definition of the offense—the willful and malicious burning of property, usually a building.

The photography of arson is sometimes a lengthy operation extending over a period of several days. It should begin as soon as possible, ideally with pictures of the fire in progress and continue thru the period of searching for the evidence of planted incendiary materials and other objects which suggest pre-arrangement.

FROM FIRE TO PROSECUTION

The primary function of the crime-scene photograph is to provide information which will assist in the investigation and the prosecution of the subsequent criminal case.

a. To provide the investigator and the prosecuting attorney with an accurate, pictorial representation of the appearance and position of objects at the scene.
b. To aid in the questioning of suspects and witnesses. A suspect may confess after seeing a photograph of the crime scene and being confronted with a description of his actions during the commission of the crime. Such pictures are often useful during lie-detector tests.
c. To present to the judge and jury an accurate picture of the scene, thereby enabling them to understand the evidence better and to evaluate intelligently the testimony concerning the actions of the defendant and witnesses.

RULE 1.

Begin taking pictures immediately. Points to photograph during progress of the fire are:

a. Area of origin.
b. Rapidity, direction and manner of spread of the fire.
c. The nature of the burning substances as indicated by the steam, color of smoke, color of flames and size of flames from them. The color of smoke and intensity of flame often indicate whether or not an accelerant was used.
d. The progressive stages of the burning shown from various angles as significant changes take place.
e. The arrangement of doors and windows.
f. The identity of spectators. Often an arsonist will return to the scene to watch the burning. This applies especially to the pyromaniac.
g. The photographer should always carry with him a notebook to enter the time and place of each photograph.

After the fire has been extinguished the photographer and the investigator may enter the building. It is very important that the photographer and investigator work together very closely and remain together during the entire investigation. The firemen should be instructed to never touch anything in the building unless absolutely necessary to extinguish the fire. Not more than

Address: Inspector D. L. Nicks, Bureau of Fire Prevention, St. Petersburg, Florida.

one or two investigators should make the search and the photographer should photograph each room before anything is touched by the investigator.

Crime-scene photographs should provide such views of the area as would have met the eye of an average observer. Usually a series of views will be required. For instance, a set of four photographs is the minimum to show a room adequately and many more may be needed. Many times a wide angle lens is needed for small rooms. Items of evidence should then be photographed close up.

The photographer should be sure to photograph the following:

1. Objects which serve to establish the fact that a crime has been committed or the *Corpus Delicti*.
2. Evidence relating to the manner in which the crime was committed or the *Modus Operandi* of the criminal.
3. Objects which might provide a clue to the identity of the perpetrator.
4. Clues which would connect a suspect with the crime.

Some of the things to be looked for and photographed close-up are:

a. Incendiary devices and materials: wires, candles, match books, trailers, excelsior, paper, cloth, gasoline, kerosene or other combustible liquids, empty containers.
b. Holes in walls. Sometimes holes are cut in walls to allow fire to enter wall and accelerate faster.
c. Uneven burning, sub-normal travel.
d. Devices or appliances tampered with, such as sprinkler system turned off or gas ranges turned on.
e. Separate fires should be shown in photographs.
f. Special arrangement of furniture or merchandise or lack of clothing, jewelry or other articles.
g. Doors, windows and scuttle holes should be checked and photographed.
h. Tracks, prints and finger prints many times show up and may be photographed without dusting them.

When photographing small objects close-up it is sometimes desirable to have a marker in the picture to indicate size. Because many courts object to marking devices appearing in a picture it is best to take two photographs, one without the marker and one with it. Three general classes will include most types of markers.

1. Rulers, yardsticks and tape measures can be used to show the relative sizes and distances between objects or the degree of magnification of an enlargement. They should be placed beside the object so as not to obscure any important part of the evidence. In document and small object photographs a small ruler placed at the bottom or in the corner of the field of view will enable the photographer to determine the degree of enlargement quickly and also to show the relative size of a photographic exhibit.

2. Identification cards are sometimes placed in the scene to identify the picture. The information of the card should be restricted to such data as the date, time, location and the photographer's name.

3. Location markers such as white sticks or numbered signs can be placed in the photograph to show the exact location of the occurrence or the location of significant objects which, because of their small size, are not readily identifiable in the picture of the general scene. The photographer should be prepared to testify to the meaning of the markers and the accuracy of their placement. In selecting a marker avoid using an article which resembles objects originally found in the scene.

In all cases of using markers, the scene should first be photographed without them and people should not be used at all.

The photographer must remain at the fire scene during the entire search and overhaul. After the scene has been completely searched and all evidence photographed and preserved the negatives should be processed and printed as soon as possible. It is better when first printing the negatives to produce contact prints, and to print every negative taken even though it may look like a duplication.

When the investigation has been completed and all evidence turned over to the prosecutor he will decide which pictures he wants to use in court. The photographer should then print these pictures again in 8 x 10 size unless the prosecutor wants some still larger. Some prosecutors may want several sets so the jurors will not have to pass them around.

When the investigator and photographer know which pictures will be used in the prosecution they should make a floor plan drawing of each floor of the building showing all doors and windows. Each picture should then be numbered and identified giving date and time taken, location and photographer's name. The number of each picture is then to be entered on the floor plan showing the approximate location and angle taken.

Admissibility of photographs as evidence:

The laws of search and seizure apply to photographs as well as other physical evidence. A building may be entered and photographed if you have observed one of the following rules:

a. With the owner or occupant's permission. This may be either oral or written.
b. With a search warrant.
c. Incidental to a lawful arrest.

A picture offered in evidence should truly and accurately represent the scene at the time it was photographed. It should be in sharp focus and free of any unusual distortions.

Evidence photographs may be divided into two groups:

1. Those which represent objects of evidence and simply serve in place of the object.
2. Those which are designed to prove a point bearing on an issue in the case.

In both cases the court makes the final decision as

to whether or not a photograph is admissible. Any type of photograph may be admitted in court such as slides or transparencies or movies. Usually the 8 x 10 black and white print is the easiest to present.

THE PHOTOGRAPHER AS A WITNESS

The arson photographer will usually be called to court as a witness for the prosecution to introduce and identify his photographs. While testifying he should present a good appearance and always remain a neutral witness.

The prosecutor may wish to qualify the photographer as an expert so that he may give an opinion. If so, he will ask for the qualifications and experience that you have had. These may be some typical questions:

1. What is your name?
2. Where do you live?
3. What is your occupation?
4. What experience have you had in taking pictures?
5. Have you ever been consulted by other law enforcement agencies relative to making evidence photographs?
6. How many times?
7. Was there a time when you were called to the scene of a fire to make pictures?
8. I show you several photographs and ask if these were taken by you?
9. Do they truly and accurately represent the scene at the time they were taken?
10. What type of camera was used?
11. Lens?
12. Diaphragm?
13. Shutter Speed?
14. Type of film?
15. Filter?
16. Light source—daylight or flash?
17. Number of negatives?
18. Distance?
19. Angle?
20. Contact or enlarged? How many times?

He may also want to show continuity and preservation of the pictures and negatives. You must be able to prove that the negatives or pictures could not have been changed or replaced from the time they were taken until they were presented in court.

The man who took the pictures does not necessarily have to testify. Anyone can identify them for the court who can testify that they are a true and accurate picture.

★★★

NEWS and ANNOUNCEMENTS

FEDERAL SIGN AND SIGNAL CORPORATION MOVES INTO MODERNIZED PLANT IN BLUE ISLAND, ILLINOIS

Federal Sign and Signal Corporation, one of the nation's oldest and largest producers of vehicle and industrial emergency lights, sirens, and horns, has moved its general offices and Chicago production operations from Chicago's South Side into a modern one-story plant at 136th St. and Western Ave. in suburban Blue Island, Ill.

The 164,000-square-foot plant contains the country's most extensive and up-to-date facility for the design and manufacture of audible and visual signals for industry and government. Folger M. Smith, new products manager, related that the company has streamlined its production, testing, and research and development operations in the new location, and will be able to expand its services substantially to both business and communities.

As part of its extensive engineering facilities, the company has installed an enlarged "anechoic chamber," largest in the signal industry, in the new location. Designed to test all types of signals from small buzzers to the giant Thunderbolt air raid sirens produced by Federal, the room within a room has walls, ceiling, and floor covered completely with wedges of fiberglas sound absorbing mater-

The giant Federal Thunderbolt, a powerful 10 horsepower air raid siren, today forms the heart of America's air raid warning system. Installed in most major U. S. cities, it was created to meet the special requirements of the Federal Civil Defense Administration. The horn revolves, funneling its high-pitched wail in all directions.

ARE YOU THE MAN OR WOMAN?

Juvenile Control Coordinator—$900 per Month

Exceptional opportunity open to qualified individual in broad scale program of juvenile control who has the ability and willingness to accomplish objectives through persuasive leadership. Responsibilities include the development of facts, techniques and training materials to assist cooperating agencies in the approach to delinquent and pre-delinquent youth. As program unfolds, Coordinator will participate in the broader planning and coordinating processes in the community.

Candidate should have had professional experience in social planning, juvenile or school programs, law enforcement or other related areas which involved the coordination of regulatory or enforcement staff activities, and at least one year of experience at a responsible level of participation in community organization or inter-group relations. A Master's Degree in one of these areas is considered desirable. To apply, simply send a complete resume of your background and training to the City Manager, Room 318, City Hall, Oakland, California.

To help in the development of new signals, and to aid in the improvement of existing audible signalling devices, Federal Sign and Signal Corporation maintains this soundproof "anechoic chamber," the "quietest room in the world," in its research laboratory. Walls, ceiling, and floor are covered completely with fiberglas wedges to eliminate all echoes and keep out all sound but the one being tested.

ial. With all sound and echoes eliminated, the chamber is one of the quietest rooms on earth – ideal for the exacting laboratory testing and quality control maintained by Federal for its production standards.

With its concept of anticipation of the nation's emergency warning needs, and its research and development program amplified by extensive field testing with local police and fire departments and industrial plants, Federal Sign and Signal in its new plant is working now to continue to set the pace in the signal industry by developing a new program of products keyed to the future.

NEW UNBREAKABLE URINAL

Aluminum Plumbing Fixture Corp. is now making available, in their Super Secur Ware series, a new wall-hung urinal made of unbreakable cast aluminum for institutional applications.

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For complete information on Model A-600 Urinal write to: Aluminum Plumbing Fixture Corp., 778 Burlway Road, Burlingame, California.

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"One must learn by doing the thing; for though you think you know it, you have no certainty, until you try."

This advice, offered by Sophocles 2,400 years ago, is the basis for a modern, award-winning traffic safety program for children. Here's the story:

Continued on page 80

S/Sgt. Henry Finch gives some personal attention to a group of Safetyville youngsters going through the traffic safety course. They may be too young to know what S-T-O-P spells, but he'll make sure they know what the sign means—and what to do when they see it. This traffic safety work was honored recently with a Certificate of Merit from Shell Oil Company's Carol Lane Awards program.

PUT THESE 8 EXPERTS IN POLICE SCIENCE AND CRIMINAL INVESTIGATION TO WORK FOR YOU

FINGERPRINT HANDBOOK *by* **Annita T. Field,** *Los Angeles.* A breakdown of all phases of procedures that deal with classification, interpretation, and analysis of fingerprints. Presented in the style of a glossary rather than a textbook, the material is easy-to-find, easy-to-use. The fingerprint world now has available for the first time a work covering adequately and authoritatively the terminology of the fingerprint identification system. **Pub. Dec. '59, 194 pp., 267 il. (Police Science Series), $5.75**

THE PAROLE PROCESS *by* **G. I. Giardini,** *Pennsylvania Board of Parole.* Every situation is viewed. Interviewing is discussed in terms of purposes to serve and psychological principles to obtain reliability and objectivity. Recording for treatment as well as for surveillance and control is illustrated. Common supervision problems are analyzed. Packed with practical information on interstate cooperation, fugitive refugees, recruitment of qualified personnel and training methods. This book will assist you on a thousand-and-one occasions with your own parole problems. **Pub. August '59, 408 pp., $12.50**

POLICE REPORT WRITING *by* **John C. Hazelet,** *Chief of Police, Lawrence, Kansas.* The necessity of proper reports and records for effective police operations and the final obligation of fulfilling the essential requirements for Uniform Crime Reporting are discussed in detail. Numerous selected illustrations vividly portray basic tools of the subject and a few of the many situations requiring written reports. Eminently adaptable for use as a training or reference manual for individual police officers, police training schools, and police agencies regardless of size. **Publication date Jan. '60 (Police Science Series)**

SCIENTIFIC INVESTIGATION AND PHYSICAL EVIDENCE: A Handbook for Investigation *by* **Leland V. Jones,** *California Association of Criminalistics. Edited by* **E. Caroline Gabard.** Gives crime investigators and policemen on patrol access to the vast stores of criminalistic laboratory knowledge developed by the Los Angeles Police Department Scientific Investigation Division. This is a know-how course on tested and tried methods and procedures for recognizing, gathering, marking, preserving, and packaging physical evidence and presenting such materials in court. Avoids highly technical material sufficiently treated elsewhere. **Pub. Aug. '59, 312 pp., 106 il., $8.50**

CRASH INJURIES: The Integrated Medical Aspects of Automobile Injuries and Deaths *by* **Jacob Kulowski,** *St. Joseph, Missouri.* The WHY and HOW of automobile accidents and injuries. A large part of the book is on HUMAN SALVAGE — from first aid through ultimate rehabilitation. Over 50 tables and 600 illustrations serve to clarify the situation. Pulling together three closely related and older disciplines: medicine, engineering, and law, all three of which must converge simultaneously upon their respective domains toward a solution. **Publication date Jan. '60**

DRIVE STRUCTURE AND CRIMINALITY: Criminobiologic Investigation—Contributions to Experimental Drive Research and Schicksal Psychology *by* **Hans Walder,** *Zurich, Switzerland, edited by* **Lipot Szondi** *and translated by* **Marvin W. Webb.** By means of the most highly developed techniques of criminal investigation and personality exploration employed in Western Europe, the psychodynamics of criminality are pursued to their innermost recesses within the human psyche. Fosters improved methods of crime detection and illumines the more difficult but more significant areas of punishment, reformation, and crime prevention. **Pub. Sept. '59, 192 pp., 164 il., (Amer. Lec. Psychology), $7.50**

THE POLICE TRAFFIC CONTROL FUNCTION *by* **Paul B. Weston,** *New York City Police Dept. (Ret.)* How to relieve traffic congestion and prevent motor vehicle accidents is the classic question facing the modern community. Chief Weston tells how it can be accomplished. Written in an easy conversational style born of the author's familiarity with the subject of traffic safety. **Publication date Feb. '60**

CRIME AND KIDS: A Police Approach to the Prevention and Control of Juvenile Delinquency *by* **Inspector John E. Winters,** *Metropolitan Police Dept., Washington, D. C.* Modern police thinking is represented in this fresh view of current measures being devised and operated throughout the United States on the structure, purpose, function, and relative matters as to the role of the police in programs designed to control and prevent juvenile delinquency. Represents the accumulated, tested-and-tried-out-practical police knowledge of those who deal with this serious problem on a realistic basis. **Pub. July '59, 176 pp., 8 il., (Police Science Series), $5.25**

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"Safetyville, U.S.A."—*Cont. from p. 78*

Officers' and enlisted men's wives at the Ethan Allen Air Force Base, Winooski, Vermont, decided to start a safety program for children at the base. Traffic safety would be stressed, with youngsters "learning by doing"—participating in actual traffic situations.

The result is Safetyville, U.S.A. a miniature town complete with asphalt roads, street signs, stop lights, a general store, hospital, school, firehouse, post office, hot dog stand, and private residences.

Safe driving means watching out for pedestrians, too. Here, children at the Ethan Allen Air Force Base learn how to wait patiently until the policeman gives them the go ahead. Streets in the miniature town are named after noted Air Force personnel.

The traffic is heavy at Safetyville, U.S.A., but the policeman—with an assist from instructor S/Sgt. Henry Finch—can handle the situation. If the fellow on the right didn't get the green light, you can bet he's in for trouble. Both day and night safe driving rules are taught. The Safetyville teaching program has been awarded a traffic safety certificate from Shell Oil Company.

The "town" was planned by the Ground Safety Office at the base. Airmen and parents of base children worked on their own time to construct the buildings, do the painting, and lay the roads. Local businessmen donated the pedal-powered vehicles.

Safety classes are run each Saturday to teach the tots recognition and understanding of safety signs and rules—education that will make them safe drivers when they grow up. Children not participating in demonstrations sit in bleachers while small groups are taken through the course under the direction of base wives or local police or airmen. Sometimes the youngsters act as police, giving out tickets for traffic violations. All rules of the road and safe pedestrian behavior are covered.

Since the program began, about 4,500 children—from the air base and nearby communities—have gone through the course. The program is under the direction of members of the Officers' Wives Club and NCO Wives' Club.

For their excellent work at Safetyville, these ladies were honored recently by being awarded a Certificate of Merit from Shell Oil Company's Carol Lane Awards program. This traffic safety program, named for Shell's women's travel director, is administered by the National Safety Council through a grant of Shell. It is the only nation-wide program honoring women's contribution to traffic safety work in the community and state.

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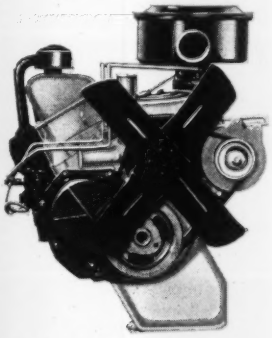
Just like a woman driver! Her excuse that "The fire hydrant wasn't there when I parked" doesn't seem to be getting her any place. Oh well. The driver (Laura Traufield) and the hard-hearted cop (Pete Garrett) won't get too worked up. They know that cookies and soft drinks—donated by local Vermont businessmen—will be waiting them after the safety session is over.

KODAK PUBLISHES NEW BOOK ON LAW ENFORCEMENT PHOTOGRAPHY

A completely new handbook on "Photography in Law Enforcement" has been published by Eastman Ko-

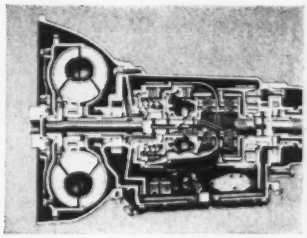
Continued on page 82

MORE "GO" PER GALLON—Advanced engineering of the new Dodge Dart's Economy Slant "6" engine delivers outstanding fuel mileage, spirited acceleration, too.



ECONOMY SLANT "6" Brilliant new design produces maximum economy, outstanding performance on regular gas. 225 cubic inch displacement. Compression ratio 8.5 to 1. Horsepower 145 at 4000 r.p.m. Torque 215 lb.-ft. at 2800 r.p.m.

TORQUEFLITE SIX—The first automatic transmission designed exclusively for six-cylinder operation. Matches power-torque curve of Economy Slant "6" to get the most performance from the least amount of gas without unnecessary engine strain.



Saves like a 6...acts like an 8

Exceptional economy! It's yours with the newest of all six-cylinder engines, the Economy Slant "6", available to you in the new low-priced Dodge Dart.

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Kodak Publishes Book—*Cont. from p. 80*
dak Company for use by law enforcement agencies in city, county, state and federal governments.

The new book, which replaces a volume with the same title published in 1948, covers a wide area of criminal detection and investigation through photography. It's purpose is "to indicate the many ways in which photography can be used to discover, record, and preserve evidence."

The original text is by Charles E. O'Hara of the New York City Police Department. Information on arson was supplied by John Kennedy, General Arson Investigation, Chicago, Illinois. Photographs from police agencies across the country illustrate the 80-page volume. Chapter titles include: *Identification Photography, Crime-Scene Photography, Specific Crimes, Traffic Accidents, Articles of Evidence, Fingerprint Photography, Document Examination, "On-the-Spot" Photography.*

The concluding chapters deal with the technical preparation of courtroom exhibits, the role of the police photographer as a witness, the parts played by photography and especially films in police training, crime prevention, and public relations. A final section contains diagrams for two darkroom layouts, one designed for a small police department, the second for a large city. "Photography in Law Enforcement" is available from Kodak dealers. Its list price is $1.25.

SEVEN POLICEMEN KILLED BY WILD ELEPHANTS

"It couldn't happen in the United States but it did in Vietnam," reports a Michigan State University police administration professor just back from four and a half years in the Southeast Asia country.

Howard W. Hoyt, program director of law enforcement at Michigan State University, was in charge of the M.S.U. police advisory unit in Vietnam until a few weeks ago.

The seven policemen, he explained, were patrolling the jungle to combat Communist guerrilla activity. Apparently, they disturbed normally-peaceful elephants in some way.

The elephants attacked and the policemen climbed trees. But the elephants shook the trees with their trunks. The men fell to the ground and were trampled to death.

"Wild elephants aren't all the police have to contend with," continued the former Kalamazoo police chief. "They are constantly fighting guerrillas. Every week five to 15 policemen are killed but they account for twice that many guerrillas.

"On top of that, there are bandits who raid plantations and live in the jungles. These men aren't communists. They are just plain hoodlums."

In the cities, traffic is a problem.

"The capital, Saigon," said Mr. Hoyt, "has intersections which few American policemen could handle without experience there. Motor bikes, scooters, bicycles, ox carts, man-drawn vehicles and small European cars cause a type of congestion that we don't have in the U.S."

On the other hand, Mr. Hoyt found that the Vietnamese police have little trouble with the vicious type of crime that besets American police.

"They are a cool-headed people," he explained. "It takes a lot to antagonize them to the point of murder. However, there is quite a bit of thievery."

Mr. Hoyt feels conditions in Vietnam have been steadily improving and that his and other M.S.U. missions can take some of the credit.

It was his responsibility to advise the police forces. Most of the police are in the hire of the national government. However, Saigon and two other cities have municipal forces.

He found the working, professional policeman cooperative and willing to learn.

In addition to giving technical advice, Mr. Hoyt said, his group was also able to convince many Vietnamese police of the importance of good public relations.

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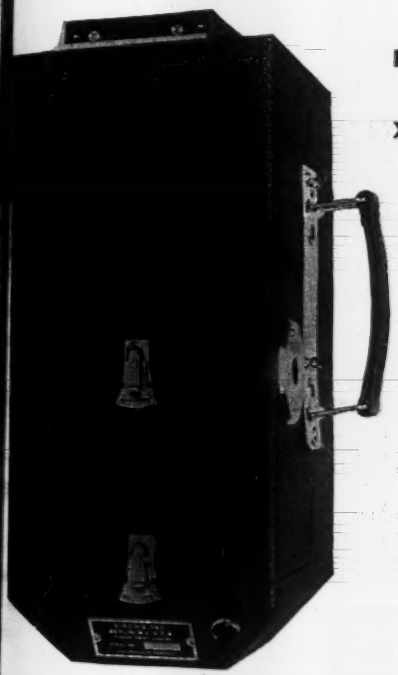

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